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The condition of Oxbridge

Oxford and Cambridge were described in the recent Labour Party policy document for post-18 education as "a major cancer in the educational system". This misleading but forgivable hyperbole contained in two pages of otherwise moderate and sensible proposals for the reform of Oxbridge, contained in turn in 70 pages of expensive but defensible recommendations for the reform of post-18 education, raised an entirely predictable storm. Dr Boyson, Lord Dacre sensibly leapt to the defence of Oxford and Cambridge. The Labour working group which had written the report appeared to back-track (or did they?). The row subsided, apparently no more than a ritual disingenuous to entice August.

In fact the whole episode was highly misleading about both the priorities of the Labour Party and of Government in general, and the degree of complacency at Oxford and Cambridge. A future Labour Government, if that is not an extinct species, will not assault Oxbridge, partly no doubt because of inevitable infirmity of purpose but mainly because it will have much more important things to do in higher education. Oxford and Cambridge will be a sideshow for any government. The days when they ruled a Royal Commission or similarly highly dignified formal inquiry have gone for ever.

The real danger facing Oxford and Cambridge is no longer deadly assault by some reforming government. Twenty years ago the Robbins committee could still write: "Continuance of such anomalies (the 'exceptional' quality of Oxford and Cambridge in relation to the rest of the university system, their difficulty in reaching rapid decisions, and the general obscurity of their administrative and financial arrangements) may well endanger not only their own welfare but also the effectiveness of the whole system of higher education in this country, of which they are and should be so splendid a part." But who today would imagine that the fortunes of the universities depended on the reputation of just these two institutions?

Indeed, some would argue that the legitimacy of Oxford and Cambridge over British higher education was never as great as popularly imagined. However much Oxbridge graduates may have dominated our various public elites, however much they may have influenced the values of the academic profession by their extensive migration throughout the system (and not just to other universities but also to polytechnics and colleges), by and large the Oxbridge model for a university has remained exceptional. It is not the collegiate form of Oxford and Cambridge which have dominated British higher education but the professional oligarchies (autocracies?) firmly rooted in discipline-based departments typical of the great civic universities.

The real danger is that Oxford and Cambridge will be pressed, gradually but inexorably, to the margins of higher education, exceptional no longer simply an exception. Such an outcome would merely represent the continuation of a long-acting trend. As recently as the early 1960s 15 per cent of university students were at Oxford and Cambridge; today that proportion has fallen to less than 8 per cent. The apparently excessive number of Oxbridge graduates among university teachers is largely a reflection of Oxbridge's share of the student population a generation and more ago.

ford and Cambridge have come to conform more closely to the (civic) large and have experienced increasing doubt about their own exceptional practices. Indeed, more contentiously, it can be argued that such success has been most conspicuous in those, largely science, subjects in which this process of convergence has been most marked, and most unwise in those subjects in which the "collegiate" traditions have remained strong. Perhaps too this process has opened up a gap between the more "modern" Cambridge and the more "exceptional" Oxford.

The changing position of Oxford and Cambridge within higher education has often been overlaid and obscured by the role in the formation of public elites. Yet the two should be distinguished, partly because Oxford and Cambridge are primarily academic institutions so the former is of more substantial significance than the latter, partly because their social reputation depends ultimately and tangibly on their intellectual capacity. It simply does not follow just because half the Cabinet or three quarters of senior civil servants are Oxbridge graduates that these two universities continue to dominate higher education and intellectual life to the same degree. There is no necessary correspondence.

'Oxford and Cambridge may be pressed to the margins of higher education, exceptional no longer an exception'

Politicians, of course, occasionally confuse these two particularly in the intoxicating and historic days of opposition. Governments are less likely to make the same mistake because the practical policy issues they face are concerned with Oxbridge's concrete position within higher education, not its politico-cultural place within British society. So a direct assault by the next Labour government or the establishment of a Royal Commission by any government does not mean that the position of Oxford and Cambridge is secure, simply that the real challenge is how and whether to preserve their exceptional tradition in the face of growing pressure to conform to some general university norms rather than how or whether to defend this tradition against external political attack.

The brief August row about the Labour document was misleading in another sense. It suggested that Labour's proposals were much more radical than in fact they are, and that the resistance to reform in Oxford and Cambridge was much more intransigent than it is in fact the case. In universities who would agree with the substance of Labour's programme, especially on undergraduate admissions. Particularly perhaps at Oxford there are already many critics of the baleful effect of the seventh-term entrance examination, which so painfully favours a level "cramming" in public schools, in the university as in the Labour Party.

Many, of course, would object to the scale of the reform of admissions proposed by Labour. Modest dilutions of an over-rich public school supply, such as the present Inner London special entry scheme, are open admissions, are quite another. On issues apart from admissions any reform programme would certainly encounter stiff opposition, not only from ultra who have fought long and successful rearguard actions on issues such as opening up All Souls but also from the silent middle

majority on questions such as college fees, that other more private "pool" for which successive governments have found it difficult to design an effective cap. Yet it might be wrong to place too much emphasis on such resistance. Much more interesting, and possibly significant, is the strong support in both Oxford and Cambridge for "modern" measures. Incidentally this may mean that a surprisingly large number of dons is disposed to accept much of Labour's case on admissions, so justifying the judgment that on this particular issue the politicians are pushing against an open door. But the internal, academic reasons for objecting to the Brideshead Revised image of Oxbridge are not the same as the external, political objections.

The latter arise from reformers' rejection of the present politico-cultural place of Oxford and Cambridge within British society; the former from the desire to maintain and enhance their reputations as world-class universities, as intellectual powerhouses, to which arguably the presence of too many public school boys and the broader social eccentricity this represents are obstacles. This motive is also clear in that other Oxbridge debate about the balance of power between university and colleges, although of course the exclusive rights of Oxford colleges over admissions mean that the two debates are entangled.

In broad terms the "modernizers" support an extension of the power of the university, while the "exceptionalists" defend the prerogatives of the colleges. Perhaps in even broader terms it could be said that the former emphasize research, strong faculty organization, and a powerful central administration, while the latter emphasize that rather less tangible intellectual activity, scholarship, a continuing strong commitment to pedagogy, and the maintenance of collegiate traditions. So although there may be occasionally a false correspondence with those other spectra of opinion, science and non-science, and radicals and conservatives, this debate is really about the extent to which Oxford and to a lesser extent Cambridge should abandon their peculiar traditions and conform more closely to the values and practices of the large civic universities (hopefully as a super-league of research universities).

Oxford in particular still remains an exceptional university, not simply in the obvious senses of social prestige and academic eminence but because its priorities remain distinct. It is a university in which the Nottingham table of final degree classifications is as important as any league table of research council grants. It is a university in which it is still better to be a tutor than a professor. However much convergence has taken place over the last generation, these important and even eloquent differences remain.

One result is that in the context of Oxbridge reform can mean two maybe opposite things. Either it can mean simply modernization which has already been defined in terms of the abandonment of the peculiarity of Oxbridge and closer conformity to the norms of the university system at large. Or it can mean an attempt to purge the liberal tradition of higher education, which Oxbridge so plainly represents, of its intolerable elitism while preserving its exceptional preoccupations, which might involve continuing to rate undergraduates as highly as research, and regarding tutors as superior to professors. There was a faint echo of this in the creation of Keele, still fainter echoes at the time of the foundation of the new universities, but they have died away. Now that battle is being silently fought out within Oxbridge itself.

Laurie Taylor



Can you spare a minute? No, not really. I mean, I've got these book lists to do and... Just one minute? Hardly, I'm already a bit bit with the timetable and... Please. Well, I...

It's about a BEd course. Look, I really am terribly... You see, three weeks ago the DES produced a list of education courses which were going to be closed. I'm sure they did, but quite honestly...

And this particular course was marked down for closure next year. Well, I'm sorry to hear that, but there are more pressing... Now what do you think was the response from the man at the top of the affected institution? Look, I'm not a mind reader and in any case...

Try. Oh well, it's obvious isn't it? I mean I suppose he planned some sort of fightback. Arranged to meet the staff concerned. Set up committees. Argued for the quality of the course. Not quite. Try again. You really will have to excuse me. Shall I tell you what really happened? I'm already half an hour late for the registrar.

He promptly announced the closure of the course from this year. This Year? This what? But what about the students who'd been accepted for the course... who'd been interviewed... selected? They were told they'd have to go elsewhere. Just like that? Just like that? What about the staff... what about staff consultation? Most of the staff were on holiday. They heard the news when they returned. But the senate or council or whatever. Didn't they step in? The governors approved the closure last week. Look, I'm terribly sorry but do you think you could spare the time to go over this just once more. I seem to be getting a little muddled. Now, where did all this happen? North Staffordshire Polytechnic. Where? North Staffordshire Polytechnic.

Good heavens. D'you know for one awful moment I thought you were actually talking about a university.

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CNAA enters university arena

by Felicity Jones
Closer cooperation between universities and the polytechnics and colleges may lead to Council for National Academic Awards validation of some university courses.
Mr William Waldegrave, under-secretary of state for education, has indicated to the CNAA that he wants it to study and form views on the desirability of seeking Privy Council authority for a change in the CNAA's to charter enable it to accredit university courses.
The matter arose at a meeting of the council in July when discussions were held about courses which were likely to be developed soon and which would be improved if there was cooperation between universities and the council.
One such course is the MEng recommended by the Finniston committee. The committee's report described the characteristics which the BEng and MEng degrees should

have and suggested that these would only be achieved if there were regional consortia of institutions.
It follows that such a consortium would require regional expertise which would cross current sector boundaries.
It is also clear that although in some parts of the country the expertise to launch these courses would lie with the university, in other areas the course would profit from the resources of both university and polytechnic.
At present the charter of the CNAA, which accredits all college and polytechnic courses, stipulates that it can only approve courses in the non-university sector. A change in the charter will be required to get such joint funding courses off the ground.
The consultation process will take at least a year, Dr Edwin Kerr, CNAA chief officer, said that although this was an important development, there was no question of a rapid change.
The proposals to change the charter would need detailed study by the council and informal meetings with Privy Council officers and department representatives. A further complication is that any charter change would need the same resolution to be passed at two consecutive CNAA council meetings, followed by Privy Council approval.
The CNAA stresses that setting this train in motion should not be seen as a first attempt to bring university courses into public control.
"it is rather a device to soften the edges of the present binary policy and allow cooperation across the binary line," said Dr Kerr.
Addressing his first degree ceremony since being appointed chairman of the Board of the National Advisory Body for Local Authority Higher Education, Mr Christopher

engineering, technology and manufacture; one on agriculture and forestry; one on mathematics; one on science and applied sciences; three on professional fields; one on languages and literature; one on humanities, and one on the performing and visual arts.
The Committee of Directors of Polytechnics has strongly criticised Sir Keith's proposed cuts and called on him to revise these in the context of a more fundamental approach to the needs of the education system.
Labour higher education spokesman, Mr Phillip Whitehead has also asked Sir Keith to recall his list of summary executions.
He says both the time spent and targets seem to suggest that Sir Keith is only interested in cuts for the sake of cuts, whatever the educational and institutional losses elsewhere.
Meanwhile, Derbyshire County Council in response to proposals by the Department of Education and Science, has recommended that if Derby Lonsdale and Matlock Colleges are merged, then all teacher education should be based on the Matlock campus.
Liverpool authority has come out fully in favour of retaining teacher education at the City of Liverpool College, which it points out is one of the highest recruiters and most cost effective.

Where the Aston axe will fall

by Ngalo Crequer
Every academic at Aston University has been sent a letter either saying any application for voluntary redundancy will be refused or that if they wish to apply they will not be opposed.
More than 100 of the second kind, known as the B letters, have been sent to staff and in four cases, they have been sent to all members of the department. All the letters were sent out during the summer vacation, after a council decision, but no consultation with unions or staff took place beforehand.
The heads of department were asked in confidence in each instance to decide who should get an A letter and who a B. In the pharmacy department, which is highly regarded within the university and elsewhere, the acting head of the department, Professor Malcolm Stevens, refused to make the selection. So Mr Peter Tabbitt, the university staff officer who signed all the letters, sent B letters to every member of the department, including the head.
In electrical engineering the head of the department refused to make the selection, especially as it was already down to 50 per cent of its size, and below a minimum agreed number. So all staff were sent B letters by Mr Tabbitt.
In another department, where one member of staff had to be selected for the B list, the head, who had no intention of going early, proposed himself.
Biological sciences was another department where the head, asked to name 11 out of 20 for the B list, refused, so letters went to all.
At least two deans of faculty were sent B letters.
Aston is trying to reduce its academic staff establishment to 345 by 1983-4. The restructuring is already causing acute problems. In the faculty of science 34 academics have been lost since August 1980 and another 22 will need to go under the plan. In the faculty of management the intention is to produce a staff range between 67 and 71.
The establishment was 84 before the University Grants Committee letter, which recommended maintaining management and business studies at the existing level.
The sending of the letters has left staff demoralised and upset. The Academic Assembly is due to meet in a couple of weeks to take up the question. The headquarters of the Association of Union Teachers is also considering what action to take.
Professor Frederick Crawford, vice-chancellor, told staff that a serious deficit was looming for 1982/83. If there was no staff movement it would amount to £1.5m.



Dahrendorf, the silent knight

Professor Ralf Dahrendorf, director of the London School of Economics, has been created an Honorary Knight Commander of the Most Excellent Order of the British Empire.
The rare title of honorary knight is reserved for non-British subjects and bestowed by the Queen. It will not give Professor Dahrendorf the right to be called Sir Ralf, but he may use the letters KBE after his name. It is "in recognition of valuable services rendered to British interests."
Professor Dahrendorf, 53, was born in Hamburg and first came to the LSE as a postgraduate in 1952. He returned there as director in 1974. He was a West German parliamentary secretary of state in the foreign office from 1969 to 1970 and an EEC Commissioner from 1970 to 1974. He has also been a THES columnist.

End state aid, says Think Tank

by Patricia Santinelli
The privatization of all higher education, polytechnics and colleges as well as universities, is envisaged in a wide-ranging paper on social policy prepared by the Central Policy Review Staff for the Cabinet.
This plan would involve:
● The ending of all direct state funding of universities, polytechnics, and colleges.
● The consequent abolition of the University Grants Committee and the new National Advisory Body.
● The scrapping of the binary policy and the end of local authority involvement in higher education.
● "Full-cost" tuition fees of at least £4,000 a year at current rates to be charged to all students.
● 300,000 means-tested scholarships to be available for the brightest candidates.
● Loans to replace grants for the remainder of students.
The draft is written in the most general terms and does not get involved in difficult, and tricky, questions such as the support of research or the future relationship between higher and further education. But its proposals for higher education are considered more feasible by the Government than other proposals in the Think Tank paper on the health service and social security.
The paper is divided into three sections. The first, headed "Partial Change", includes the privatization of higher education and the introduction of new and higher charges for the health service.
The second, headed "Comprehensive Changes", proposes a similar scheme for schools, the replacement of the National Health Service by private insurance, and the cutting of social security benefits. The third, "Less Resources", envisages further cuts in education and in defence.
The Think Tank believes that up to £1,000m could be saved in public expenditure by its proposals for higher education, but warns that they would not necessarily reduce the share of the nation's resources devoted to universities, polytechnics and colleges.
The paper was drawn up on the orders of the Treasury which has become alarmed by the prospect of public expenditure absorbing a larger and larger share of the GNP as the economy stagnates. It was circulated, together with an approving note from Sir Geoffrey Howe, the Chancellor continued on page 3

About-turn by NAB on college closures

by Patricia Santinelli
In a surprise reversal, the National Advisory Body's committee has turned down recommendations from its board that the Secretary of State for Education be asked to withdraw the list of college closures and begin the exercise again.
Instead the committee has asked Mr William Waldegrave, the under-secretary of state for higher education and its chairman, to write to Sir Keith Joseph expressing its deep concern about the timing of the announcement and the time scale for consultation.
The reversal is apparently due to the fact that the board's views expressed during the two-hour debate last week represented only one side of the argument and were not shared unanimously by members of the committee.
Mr Waldegrave's letter, which is due to be sent out today, is also expected to make clear both the board's and committee's views that Sir Keith has favoured the universities and treated the public sector harshly.
But the programmes proposed by the board for the 1984/1985 planning exercise were approved by the committee and a letter is due out at the end of this month.
There will be 15 programmes: two for education; one for the medical health and related fields; three for

Sheffield rejects strategy

The National Advisory Body has been criticized by Sheffield City Polytechnic's governing body for providing an unrealistic time scale and presenting a misguided strategic view of its attempt to rationalize the public sector.
The principal, Dr George Tolley, says in a letter to NAB secretary Mr John Bevan that insufficient time has been allowed for colleges and polytechnics to respond to the board's letter, which went out at the end of July.
Sheffield Polytechnic points out that the policy of the local authority and polytechnic is to carry out effective consultation at all levels and stages and not to work in "water-tight compartments" in matters concerning strategic planning.
The letter says no account of this seems to have been taken when the NAB drew up its time limit.
"The exercise required of us must

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UGC gives priority to problem-solving

by Ngino Crequer

Subjects which are thought to contribute directly to solving the problems of an advanced industrial society were given priority when the University Grants Committee made its cuts.

But they also recognized the importance of maintaining a "wide-spread scholarly capacity" and tried to ensure that some minority subjects did not disappear entirely.

According to the University Grants Committee survey for the academic year 1982-83, published this week, the committee had two aims for 1983-4: to maintain the output of well-qualified graduates, and to "adequate research base."

In drawing up plans for student numbers the UGC took into account student demand and social demand and the capacity of the nation to make effective use of the skills and knowledge of graduates. But it was suspicious of labour planning and thought it would be a mistake to dedicate too many resources to narrow professional training for specific work.

It was also concerned about research and even before the Government's spending decisions were announced, the UGC could see that the universities' research capability had been seriously eroded, it said.

The information they considered when making the cuts included the results of the 1980 "dialogues" with universities as well as knowledge gained from visits to institutions; evidence on the future supply of candidates from schools; physical facilities and use in the universities; staff resources; employment patterns; sub-committees' views on the strength and scale of subjects; research activ-

ity and the pattern of outside support; and institutional, regional or national factors.

According to the committee its selectivity strategy made better use of diminished resources than cutting all institutions or subjects by equal proportions.

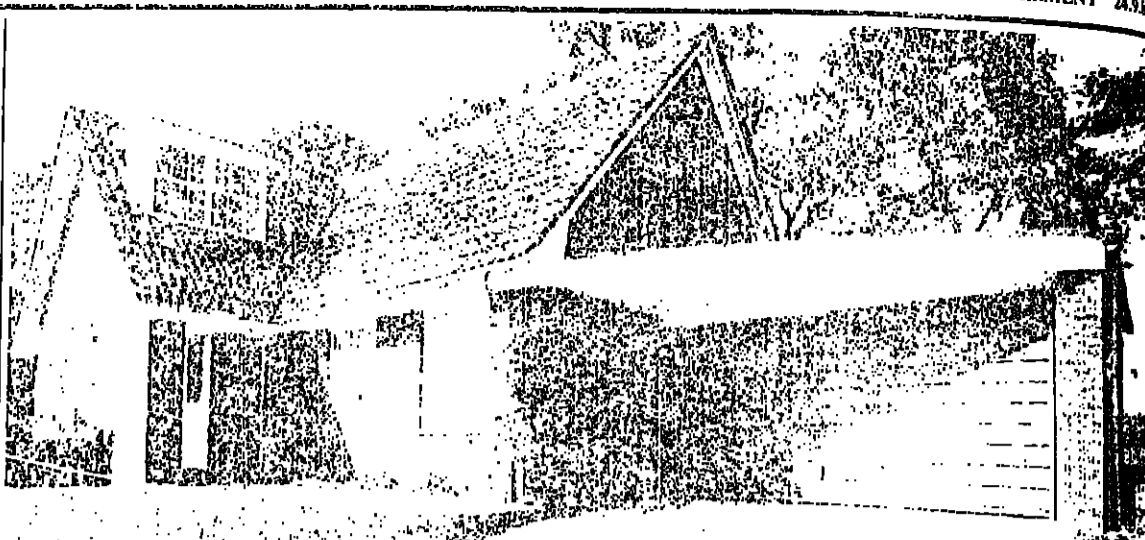
It also rejected a mechanistic, formula-based approach. "There is no substitute for judgment based upon experience and repeated review of relevant information." Although it gave advice, it did not offer a rigid blueprint for any university, the UGC said.

In 1979 the committee had said that anything greater than a 2.5 per cent cut per annum would lead to disorder and diseconomy. It comments in the survey that the actual cut of at least 11 per cent of income during the three years of cuts is well in excess of that "critical rate."

It acknowledged there were no absolute standards by which an appropriate level of public financial support for the universities could be determined. "This was a political decision. The problems facing the universities were in result of too rapid a rate of change from one level of support for another."

University Grants Committee: annual survey, academic year 1982-83. Command 8663, price £3.40 net.

Two appointments have been made to the UGC for a period of five years. They are, Mr Donald Clarke, general manager of Finance for Industry, who fills an existing vacancy, and Professor Donald Asherson, professor of clinical epidemiology at Southampton University, who replaces Professor David Greenfield of Nottingham.



The house in Bury NUS bought from its chief executive

NUS asked to explain house deal

by Paul Flather

Student leaders in Manchester have called on the National Union of Students to explain circumstances surrounding the purchase of its chief executive's house to ease his move from Lancashire to London.

The four-bedroom house in Shildhurst Drive, Bury, was put up for sale by Mr John Garner, NUS chief executive, more than 12 months ago. The NUS recently finished buying the house, and has now put it back on the market for £49,500, the reported purchase price.

Mr Garner was appointed last year on a £20,000 index-linked salary to give NUS a "more professional approach". He has now moved to Hertfordshire with his family.

Manchester University Students Union has asked the NUS to explain arrangements for the house purchase, following reports that not all executive committee members were fully versed with the details which asked to agree to the purchase last February.

Mr John Breslin, an NUS executive member, said there had been varying reports on the purchase but accurate details were not known.

"The real issue is not so much how much money was involved but whether the decision was carried out correctly," he said.

"We are told this is normal procedure for most companies. It was decided at a full executive meeting with all the pros and cons properly aired that is fine. It does concern us that it may have been taken behind closed doors."

A statement from Mr Ken Spencer, a former chairman of the union's independent finance committee, published in the current NUS News denies any mystery in the arrangements.

"They are identical with schemes offered by many employers, ranging from banks to wine and spirit merchants, often to quite junior staff," Mr Spencer said in an open letter.

He stated that at a review meeting last February it was agreed that difficulties in selling his house were adversely affecting Mr Garner's job performance. He would have been unlikely to move to London within six months because of the slump in the house market.

This was considered unacceptable to the two officers involved, Mr David Aaronovitch, former NUS president, and Mr Alan Watson, the NUS treasurer. It was then agreed to value the house, buy it, and resell it.

Mr Spencer stated he had been critical of arrangements in making loans or salary advances to some members of staff in the past. But in this case he could not see any financial benefit to the employee or risk to the assets of the NUS.

The row over the house purchase and the executive's handling of the affair is becoming a political test for the new Labour leadership of NUS. It is likely the matter will be raised at the union's national conference in December.

There are still divisions about whether the affair should be played down or brought completely into the open. One underlying problem has been complaints from staff about management problems. Three more staff have just revealed they are to leave NUS shortly for varying reasons.

The latest in Poplar music

A musician-in-residence has begun work in the East End of London to encourage musical activity in the borough of Tower Hamlets.

Mr Shaun Tozer, a keyboard and percussion player and composer with a published album, is also interested in African and Indonesian music. He has already put his energies behind a proposed music workshop for the area adjoining Poplar Baths, where young unemployed people in particular can learn, rehearse and record music away from more conventional surroundings.

Based three days a week at St Paul's Way school and youth centre, Mr Tozer has started by visiting local groups - schools, steel bands, adult education classes, professional and amateur musicians.

The proposals he put to the borough, the Inner London Education Authority and the Greater London Arts Association, which put him the £40-a-day job, included creating more access to music-making for people usually intimidated by the "next-on-a-page" approach.

Initially the post lasts until next summer. Before then Mr Tozer's plans include workshops in non-western music, rock and reggae music, a composition workshop and twentieth-century electronic music study, and miscellaneous music sessions. He hopes to encourage would-be professional musicians to take the plunge, and put them in touch with others around London.

Industry told: Mind your own business

Industry should have a dominant voice in discussions on business education curricula and course design, Mr William Waldegrave, the under secretary of state for higher education, told a conference in London last week.

"The growth in enrolments and in the range and variety of business education courses had been one of the successes in higher education since the mid-1960s, he said.

He told members of the British Business Graduates' Society that despite the recession, school leavers thinking of full-time business studies could be fairly confident about their job prospects.

But only a tiny proportion of those in or entering business had any initial or post-experience formal training in business or management techniques.

Able managers in manufacturing industry were crucial to improving Britain's competitiveness, Mr Waldegrave said, and graduate technicians and middle managers would be increasingly needed.

"What we in the education service need are clear signals from industry as to whether a further increase in management graduates should be an important part of the strategy for improving the numbers of graduates in industry. Or, is it more important to increase the supply of, for example, electronic engineering graduates?"

"There is still hostility and suspicion in some companies to academic management training. Some of these suspicions can be well founded even in academic educational terms."

The planning committee is resolved to continue to support some new developments in teaching and research.

Aberdeen is establishing a trust to raise some £3m for new ventures, including a chair in offshore engineering and an ophthalmology unit.

Future looks safe for SSRC

by Paul Flather

The Social Science Research Council will not be abolished. It could, however, lose control of postgraduate training and this would go against the recommendations made by Lord Rothschild's review of the council in May.

A statement from Sir Keith Joseph on the future of the SSRC is not expected before late October, but it has emerged that the Secretary of State for Education accepts he cannot abolish the council.

Talks between Mr Michael Posner, SSRC chairman, and Sir Keith are being held, and the minister's research assistant is still collecting new data about SSRC work. This confirms that four months after the Rothschild review no decision has yet been reached.

Attention is focussed on two areas: whether control of social science postgraduate studentships.

worth £8,780,000, in 1982-83 should be lived off, perhaps to a central grants unit or to the Department of Education and Science; and whether state support for management training and research should be withdrawn.

All other recommendations in the Rothschild review, including that it should face no more financial cuts for three years, are seen as secondary to a decision on postgraduate awards.

The SSRC opposes any piecemeal reduction in its operations. The council is stressing its independence as a chartered body, free to decide how to act.

The first clear hint of the Government's thinking should come at the next council meeting on October 15. Sir Keith has delayed new council appointments, although members have been reappointed where appropriate to allow the meeting to go ahead.

In a detailed chapter on awards

Lord Rothschild argued that awards should remain with the SSRC, and senior DES officials have told Sir Keith they are not keen for the department to take on social science awards as well as humanities.

Sir Keith is inclined to a more "student-led" system of awards, with the best students in the country winning awards as opposed to the SSRC's allocation of a "quota" of awards in advance for institutions to dispose of. The DES, or a new central unit for all awards, could operate such a system more easily. Humanities awards are already student led.

On management, the Government feels the customer-contractor principle could be better applied, despite Lord Rothschild's view that it has little validity in social research.

The SSRC is to spend £93,000 on management and industrial relations research in 1982-83 and £1,710,000 on student awards in the two areas.

Polys may start talks on joint entry scheme

by Ngino Crequer

Polytechnic directors have told vice chancellors they may ask the Universities Central Council on Admissions about the possibility of a joint admissions system.

Two UCCA representatives have been invited to attend a meeting next month of the Committee of Directors of Polytechnics admissions working group. This was set up in June to examine different clearing systems.

The UCCA officials will be asked to explain their system in detail and there will be discussion of the overlap of applications, and the possible extension of the use of computers.

The CDP has told the CVP that a university/polytechnic system, with the polytechnics joining UCCA, is one option on which they would like the universities' views.

UCCA is run and paid for by the universities and they would have to agree to any extension of the service.

It is known that some vice chancellors would strongly oppose letting in the polytechnics.

They fear that polytechnics' local education authorities would want more say about admissions and would try to use a central system to achieve this. UCCA makes no decisions about admissions but is a distributor of information.

Mr Peter Flowerday, secretary of the CDP stressed that the working group was a long way from forming its views and that its discussions could not preempt the decisions of the CVP.

"The polytechnics now are like the universities were 20 years ago when they set up UCCA. This year and to some extent last year, polytechnics will not know how many students they have until they cross the door."

Newly merged college faces more cash cuts

by Patricia Santinelli

The future of the recently merged Bradford and Ilkley colleges is being put at risk by Bradford council's decision to impose more big cuts on the new college's finances.

The college, which earlier this year had its higher education budget cut by £300,000, has now been asked to lose a further £103,000 in that field and about £75,000 against its whole budget.

This means it has been asked by the Conservative-led council to find some £500,000 in the rest of this financial year as part of a package of cuts of between £1.2m to £1.6m over a three to four year period.

In recent negotiations with the National Association of Teachers in Further and Higher Education, the college agreed that of the 200 staff involved in higher education 120 at Bradford, 80 at Ilkley, some 146 would be kept and the rest asked to take redundancy.

Dr Paul Callagher, principal of Bradford College was shocked at the authority's request for further cuts. These are being sought far too quickly and are undesirable both academically and in terms of personnel, he says.

He points out that both Bradford and Ilkley colleges had already merged with other institutions since the 1970s and had lost many through early retirement and voluntary redundancy.

The cuts mean some scheduled projects will not go ahead. One was the introduction of new technology, the other was improving liaison with industry, for which the college had been criticized. New machinery had been dispensed with.

But the college hopes to reinstate the remission of fees for unemployed young people who want to attend courses.

A meeting of the education services committee this week was expected to allow remission of fees for around 1,000 youngsters in the area. 250 of whom are on a waiting list for courses at Bradford College. The committee was not expected to rescind the financial cut imposed on the college. The matter goes to the full council next month.



Members of the General Union of Palestinian Students in Scotland, supported by the Scottish National Union of Students and several Scottish MPs, this week presented two letters to the American Consulate in Edinburgh. They called on the American Government to put pressure on Israel to come to a settlement in the Middle East.

Search is on for Sloman's successor

Vice chancellors have begun the process of selecting a chairman to succeed Dr Albert Sloman, vice chancellor of Essex, when his term of office expires next autumn.

The Committee of Vice Chancellors and Principals choose their chairman in rather the same way as the Pope is appointed. The immediate past chairman, in this case Sir Alec Merrison of Bristol, writes to all vice chancellors asking them to say who their candidate would be.

He does not announce the "draw", but keeps the whole process confidential to himself. If he deems there is a clear "winner" he informs the committee of the name. If there is not, he will select two or three of the favoured names and circulate them, asking vice chancellors to make a preference. This usually produces a single name, and he then informs the committee.

Two names being "canvassed" are Professor Alwyn Williams, vice chancellor of Glasgow, strongly fancied last time round, and Mr Maurice Shock, at Leicester.

His name has also been considered in relation to the post of chairman of the University Grants Committee, which becomes vacant next autumn when Dr Edward Parkes becomes vice chancellor of Leeds University.

Other safe "establishment" contenders are known to Sir Alec Merrison and Sir Peter Swinerton-Dyer, currently chairing the Ulster steering group, although his association with the Social Democratic Party may cause Mrs Thatcher, who will certainly be involved in the appointment, to demur.

News in brief

Deputy director to take over

Psychologist Dr Clare Burstall is to be the new director of the National Foundation for Educational Research under the present director, Dr A Yates, retires next March.

Dr Burstall joined the NFER in 1964 to lead a 1½-year evaluation of language teaching. She then became senior research officer with special responsibility for the language research programme and in 1972, was promoted to the deputy directorship. Since then she has controlled the Foundation's research, information, statistical and computing services, and sponsored research programme.

Maxwell's offer

Mr Robert Maxwell, chairman of Pergamon Press, has invited the 50 per cent of Oxford Polytechnic graduates who have not yet found full-time work to apply to him. He will try to find them jobs in his company either in this country or abroad. The offer came during his address at last week's graduation ceremony after he carried out a straw poll among the graduates receiving their awards.

New poly posts

A former president of the National Association of Teachers in Further and Higher Education, Dr Peter Wright, has been appointed deputy director of Preston Polytechnic. He is presently head of combined studies at Plymouth Polytechnic. Mr Brian Booth, dean of Preston's business studies unit, has also been promoted to deputy director.

United stance

The Manpower Services Commission and the Further Education Unit have issued a joint statement saying that the creation of a coherent programme of vocational preparation for all young people is of the highest priority. The two bodies have agreed to make occasional statements of this kind to demonstrate the degree of accord that exists between them but to provide guidance to both the training and further education sectors.

Pickup scheme moves into second gear

The Government's Pickup scheme - Professional, Industrial and Commercial Updating - moves into second gear this month with a review of pilot studies and the appointment of its first regional agent.

Three of the scheme's four initiatives, outlined by Mr William Shelton, under-secretary of state for education, in May, are now moving.

Most progress has been at the Department of Education and Science. Further Education Unit, which has already allocated almost two thirds of its £300,000 three-year Pickup funding to 20 research projects, most lasting two years.

New applications are unlikely to be funded until 1984/85, according to the FEU, when it will review progress on current projects. Most are based in further education colleges, but they include courses on public order for the police and on computer literacy for shipping managers working afloat.

The first Pickup regional agent, Mr Ron Arnfield, began contacting colleges in the East Midlands this month, and has 42 appointments already.

A shortlist of three more applicants for other areas was drawn up this week, and all are likely to start this job by the end of the year. Like Mr Arnfield, they will spend their time encouraging colleges and local industry to cooperate over professional training. He has already identified a need for computer training for draughtsmen and designers who are having to adapt to three-dimensional computer-based design.

The appointments are for three years and the DES has told agents not to make themselves indispensable, according to Mr Arnfield, the former head of industrial liaison at Nottingham University.

Their short-term activity will be accompanied by a series of regional workshops and the first takes place on October 20 in the South Midlands. Each will be held at a university, polytechnic, or colleges with educational authorities and companies invited.

Art sale provokes anger

by Olga Wojtas Scottish Correspondent

Glasgow University's Court is to implement a proposal from its library committee to sell a collection of historic negatives.

The negatives, by the nineteenth-century Scottish photographic pioneers David Octavius Hill and Robert Adamson, will be sold to the Scottish National Portrait Gallery for about £70,000. The money will go to the university's book fund which has been cut by a fifth in two years.

The committee had also set aside prints by the photographers for sale, but it is not known whether this will happen.

The Court has decided not to sell another possession, a copy of Gould's *Birds of Australia*.

The Court's decision has not been officially revealed by the university and there is likely to be criticism of it. Glasgow's principal, Dr Alwyn Williams, has stressed, however, that the collection is not a bequest, and does not add to any of the university's other collections.

One former Glasgow student, Professor Donald Gunn MacRae, of the London School of Economics, has condemned Glasgow for selling works of art "when it has never tried to raise funds through its alumni".

Professor MacRae said: "Glasgow is not just a university in a town but a university of a town. I think it is a serious loss."

"A university must maintain the sectional interests of its more craftsman-like subjects. For hundreds of years Glasgow has combined its humanistic and scientific traditions, and should not be overwhelmed by accountants and lawyers."

When the sales were proposed some months ago, Professor MacRae threatened to change his will which bequeaths his unique collection of books and documents on Scottish social history to Glasgow University.

"As a result, I had a most fantastic offer from Japan to buy the whole lot sight unseen, which I turned down. People who are interested in Scottish social history should not have to go to Tokyo to find material."

Industry told: Mind your own business

Industry should have a dominant voice in discussions on business education curricula and course design, Mr William Waldegrave, the under secretary of state for higher education, told a conference in London last week.

"The growth in enrolments and in the range and variety of business education courses had been one of the successes in higher education since the mid-1960s, he said.

He told members of the British Business Graduates' Society that despite the recession, school leavers thinking of full-time business studies could be fairly confident about their job prospects.

But only a tiny proportion of those in or entering business had any initial or post-experience formal training in business or management techniques.

Able managers in manufacturing industry were crucial to improving Britain's competitiveness, Mr Waldegrave said, and graduate technicians and middle managers would be increasingly needed.

"What we in the education service need are clear signals from industry as to whether a further increase in management graduates should be an important part of the strategy for improving the numbers of graduates in industry. Or, is it more important to increase the supply of, for example, electronic engineering graduates?"

"There is still hostility and suspicion in some companies to academic management training. Some of these suspicions can be well founded even in academic educational terms."

The planning committee is resolved to continue to support some new developments in teaching and research.

Aberdeen is establishing a trust to raise some £3m for new ventures, including a chair in offshore engineering and an ophthalmology unit.

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Leuder, back page

Stricter animal controls threatened

from Peter David

WASHINGTON
America's research universities have been keeping a hostile eye on a new Bill moving rapidly through Congress which threatens to impose strict controls on the use of animals in laboratory experiments.

The Bill, an amalgam of several initiatives in the House of Representatives, last month won the blessing of the House science and technology committee and is attracting wide support. Scientists, however, fear its passage could have dangerous consequences for university research.

One of the most worrying features of the Bill, says Ms Frankie Trull of the Association for Biomedical Research, is its emphasis on attempts to find alternative methods of conducting research currently based on animals.

"This idea seems to have caught the imagination of the public. The mood is that if you spend enough money it is possible to replace animals by techniques such as tissue cultures, computer simulations, and the like," she said.

Aping the worst side of life

by Ross Davies

It is both the fortune and the curse of chimpanzees that they are so like humans. On the one hand, the similarity can make stars of them, whereupon the contracts from Brooke Bond tea come rolling in.



On the other hand, there is a queue of medical researchers waiting in the wings eager to try out their latest painful wheeze on these popular primates.

Two American chimpanzees, Nim Chimski and his brother Ally, have been floundering for themselves what life can be like on either side of the tracks.

The two chimpanzees sought to academic stardom after being taught by Columbia University psychologist Dr Herbert Terrace to communicate simple thoughts via a sign language used by deaf American humans.

However, once a study involving them at the University of Oklahoma was over, Nim and Ally began to see the other side of chimpanzee life outside the jungle. They were packed off to New York University's laboratory for experimental medicine and surgery in primates at Sterling Forest, to begin a new and less promising career as human surrogates for testing to develop vaccines against hepatitis in humans.

It has precipitated a row among the chimps' human acquaintances, who, finding sign language inadequate to the strength of their feelings,

resorted to a verbal free-for-all reported in newspapers and on television.

NYU, however, is delaying the animals' release, saying that the Florida reserve is out because a chimpanzee was chomped in half during a failure of communication with a hippopotamus.

The Texas idea is also out, at least for a while, since Nim and Ally need time in quarantine because they could be carrying hepatitis or tuberculosis which could infect humans.

Meanwhile, the two chimpanzees are being kept in large cages in sight of each other and lab technicians are learning the sign language the animals "speak". According to Hoyt of the Humane Society, Nim and Ally are making signs that indicate that they "want out" of the whole business.

The professor who expected a better deal

A psychology professor at Harvard University is suing the chancellor of the University of California at San Diego for breaching his promise to impregnate her. Lee Perry filed a \$2m suit against Richard Atkinson, head of the San Diego campus, in a Los Angeles court last year.

Mr Atkinson, at a press conference in California accompanied by his wife of 30 years, called the accusations both "false" and "far-fetched".

The lawsuit is a culmination of five years of harassment and threats, said Chancellor Atkinson, reading from a prepared statement.

Professor Perry's suit was filed by Los Angeles attorney Marvin Mitchell, who recently entered national prominence after successfully litigating a "palimony" suit for a woman who had lived for some time with Lee Marvin, the Hollywood screen actor. Professor Perry's suit claims that she and the chancellor shared a relationship of love and deep affection and confidence and trust during the summer of 1977.

Blacks veto white race lecturer

by our North American Editor

Black students at Harvard University voted last week to boycott a new course on racial discrimination because one of the two lecturers giving the course is white.

The vote to implement the boycott was carried by an overwhelming majority of black students despite widespread criticism by the university faculty and the national press, which has condemned the boycott as a flagrant instance of reverse racism.

In a letter to students, Mr James Vorenberg, dean of the school, urged them to ignore the boycott.

The three week course, on 'racial discrimination and civil rights', is due to start next January. It will be taught by two lawyers - Mr J. LeVonne Chambers, who is black, and Mr Jack Greenberg who is white.

Both Mr Chambers and Mr Greenberg are members of the legal defence and educational fund of the National Association for the Advancement of Coloured People, a veteran civil rights group with a long record of promoting the rights of blacks.



Only a small proportion of US blacks become students

When plans for the course were announced at the beginning of summer black students objected to the inclusion of Mr Greenberg, who is the fund's executive director. In a letter to fellow students, the Black Law Students Association claimed that he had refused in the past to relinquish his post to a black attorney.

The students were supported by another organization representing minorities at Harvard, the Harvard Third World Coalition. In a statement, the coalition said the new course should have been offered by an instructor who can identify and empathize with the social, cultural, economic, and political experiences of the third world community.

After last week's vote the black students said in a press statement that it was unfair to depict their action as reverse discrimination.

They claimed the boycott was part of a long-running effort to persuade the law school to increase the number of black academics.

Yale curbs academic frauds

from E. Patrick McQuaid

CAMBRIDGE, Mass.
Yale University has issued a new policy to help curb instances of "academic fraud", as a result of the growth in joint projects between university scholars and researchers at other private and government institutions.

The statement says: "To the dismay of the academic community and the public, recent instances have occurred at other universities and at Yale in which the product of scholarly research has been falsified or willfully adulterated."

While academic fraud is not a new problem to American universities, a new element has surfaced in recent years. "It arises out of collaborative research in circumstances in which some members of a research team, relied upon and accepted as authentic by other members of the team, and were betrayed," according to the statement.

Yale's president, Mr A. Bartlett Giamatti, presented the policy statement, outlining nine steps for investigating allegations of fraud and for procedures and sanctions to be taken, to members of the university's corporate governing body in May.

The statement was relayed to the teaching and administrative staff recently in a newsletter.

"We do not view the seriousness of the offence in cases of fraud done in collaborative context to be as different from seriousness of offences in the context of individual work," the policy explains.

While Yale has suffered its share of such instances, the most recent case emerged in Boston when a Harvard University medical school researcher admitted that he had falsified his results in three experiments concerning heart attacks.

Last February medical school lecturers drafted measures for preventing "scientific dishonesty" which urged closer working relationships among scholars.

Overseas news

Court rules against entry guidelines

from James Hutchinson

BONN
A court in Frankfurt has delivered a judgment which should prompt the authorities to ease the restrictions on the entry of foreign students in West German universities.

The case concerned an Iranian woman who successfully appealed against a decision of the city's Johann Wolfgang Goethe University not to grant her a place. The university has based its decision on guidelines issued on March last year by the ministers of education in the German Länder for the enrolment of applicants from Greece, Indonesia, Iran, Turkey and Spain.

The ministers ruled that applicants from these countries must produce not only a school-leaving certificate, roughly the equivalent of the German Abitur, but also must have passed a university entrance examination. As the Iranian universities have been closed for more than two years, applicants from Iran can obviously not prove entitlement to a place at home.

In the court's view the ministers' guidelines - at least in respect of applicants from Iran - violated Article Three of the German constitution which stipulates that all persons shall be equal before the law.

Solidarity support goes home to face death sentence

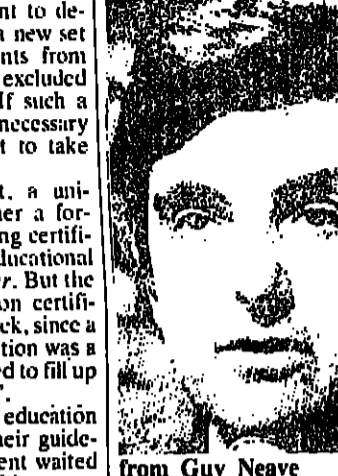
Dr Jan Josef Lipski, a Polish art historian employed at the Polish Academy of Sciences, has voluntarily returned to Poland from Britain to face charges of attempting to overthrow the state. Such charges, the authorities have threatened, could carry the death sentence. Shortly before leaving London however, Dr Lipski said he did not think that such a stiff sentence would be imposed - providing that well wishers abroad kept up their publicity campaigns.

Dr Lipski's presence in London was itself a result of such a campaign. A leading Solidarity activist, he had been arrested in December on a charge of continuing union activities after the declaration of martial law, and, in particular, attempting to organise a strike in the Ursus tractor works outside Warsaw.

Brought before a summary court, Dr Lipski, who has a long record of cardiac trouble, collapsed during the proceedings and had to be taken to hospital. After a widespread appeal by academics abroad, the Polish authorities finally allowed Dr Lipski to leave Poland "temporarily" for treatment in London. Whether the authorities really expected him to return to doubtful. At that time they were urging interned Solidarity activists to apply for emigration visas, and may well have viewed Dr Lipski's treatment as a loophole for avoiding a trial that could only bring them adverse publicity.

Dr Lipski, however, felt that failure to return would jeopardise the chances of other prisoners needing treatment abroad in the future. He considered himself on parole, and refused to make any public statement, other than a letter to *The Times* thanking all who had intervened on his behalf.

Research changes unveiled



from Guy Neave

PARIS
Wide-ranging changes in the organization of France's main research agency, the Conseil National de la Recherche Scientifique, have been announced by Jean Pierre Chevènement (above), minister of research and industry.

Among the more significant aspects of the overhaul is to be the setting up of closer links between research agencies on the one hand and universities and industry on the other.

This follows the passing of a new guideline law on research development in June this year. It provides for new style intermediary bodies to bridge the gap in knowledge transfer between research and business.

As part of the drive to make industry more aware of the importance of research, every encouragement is to be given to researchers to circulate their findings more widely. Responsibility for this is to be placed in the hands of a new directorate-general for scientific and technical information.

One of the areas deemed of particular significance in the future is interdisciplinary and multi-disciplinary inquiries.

These more technical reforms go hand in hand with others that some might see to be more politically inspired. Representation and participation of research staff is to be ensured to the highest level of the CNRS. In future, even its governing council will contain the elected representatives of research personnel.

Senators suggest annual trials for all academics

from Geoff Maslen

MELBOURNE
University and college academics whose work performances are inadequate, inefficient or incompetent, should be sacked, said an Australian senate standing committee.

All academics should be required to defend their performances in informal annual talks with their heads of department and, more formally, before a review panel at least every seven years, the committee said in a report tabled in the Federal Parliament.

The committee recommended a minimum probationary period of three years before lecturers can be granted security of tenure to avoid the system being used as "a protection against incompetence or inefficiency".

However, despite what the committee chairman, Senator Baden Teague, described as "the threatening prospect of academic stagnation" in tertiary institutions, it decided against discontinuing the system which provides academics with virtually guaranteed employment.

At the same time, the committee recommended that universities and colleges should examine their status-corps powers so necessary amendments can be made to ensure that tenured academic posts can be terminated if necessary.

Senator Teague told the senate that the general thrust of the committee's report was not to dismantle the tenure concept, but to modify and improve its operation for present day circumstances.

He said measures needed to be taken to correct the "indigestible problem" of an aging academia with little young blood flowing in.

The committee will increasingly become an indigestible problem for higher education institutions, and without corrective action will reappear... in a more intense form by the turn of the century," Senator Teague said.

The committee recommended that the proportion of academics at the level of lecturer and above who were tenured should not in any circumstances exceed 90 per cent. Overall, according to the Federation of University Staff Associations, about 78 per cent of full-time academic staff at state universities and 83 per cent of those employed in colleges have tenure.

The report did point out that the tenure system was vital for the security of employment which allows "the freedom of inquiry essential to academic work".

Tenure was important for long term research commitments and without it, it would be more difficult to attract highly qualified staff to academic work.

The committee took 12 months, and a tour of Australia's capital cities collecting evidence and submissions, to complete its 182-page report. Academics feared the committee's inquiries would lead to an attack on their conditions but this has not eventuated. Although the minister for education, Senator Peter Baume, has not yet responded to the report, the Labour spokesman, Mr John Dawkins, welcomed it as a triumph for reason and a "rebuff to anti-intellectual zealots who set out to get academics".

Lebanese visit Israel

from Bernard Kennedy

ANKARA
Earlier this month five senior Lebanese academics visited Israel in what Israeli academics hope will prove the start of a continuing dialogue and exchange between the two countries' university communities.

There have been no relations at all between the Israeli academic community and the academic communities of its Arab neighbours since Israel's establishment in 1948.

Following the signing of the Israel-Egypt peace treaty in 1979 some low-key, largely covert exchanges between Israeli and Egyptian academics have taken place. But in general, Egyptian academics have remained hostile to the Israel-Egypt peace process and have shunned all expression of "normalization" in the relations between the two countries.

Jobs offer for foreigners

from Bernard Kennedy

ANKARA
Professor Tarik Somer, the controversial new rector of Ankara University, has suggested that British academics might help to fill vacancies in Turkey's universities. The shortage of teaching staff is expected to rise as much from protest resignations as from increased demand under last year's Higher Education Council Act which is strongly opposed by many professors and lecturers.

Professor Somer noted that many British academics were unemployed and hinted that some of these - among other foreign nationals - might be interested in filling any vacancies in certain fields in Turkish universities. Foreign academics had done much for the Turkish universities in the past, and the way was now open for them to do so again.

The Higher Education Council Act may, in fact, have paved the way - at least in theory - for a reversal of the trend which favoured the replacement of foreign teaching staff by Turkish nationals. There are relatively few overseas academics in Turkish universities at present. But not many likely Somer's words seriously. For one thing, although the law now provides for foreign staff to be paid up to three times as much as Turks doing the same job, even this does not make the financial rewards particularly attractive for a westerner.

Suppression of Nehru review causes protest

from A. S. Abraham

BOMBAY
The Indian Council of Historical Research has ended up with a lot of eggs on its face following a clumsy attempt to suppress the voicing of critical opinion in its biannual journal, the *Indian Historical Review*.

A howl of erudite protest followed, with 20 professors of Delhi University, among the most eminent in the country, condemning the council's action as "an attack on intellectual freedom".

Dr Gopal himself said he had nothing to do with the council's decision and strongly disapproved of it.

Taken aback, the council hastily revoked the ban, without explaining either why it was imposed or subsequently removed.

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MILESTONES

How to end an epic

To mark the bimillennium of Virgil's death, P. G. Walsh examines *Aeneid Book XIII*



Dido and Aeneas: this detail from a fourth century mosaic found in Somerset is included in a new book, *Virgil, His Poetry Through the Ages* by R. D. Williams and T. S. Pattie. It is published by the British Library at £7.95 and £4.95.

Owen Chadwick chooses *Holy Roman Empire*, by James Bryce, original edition 1864 with subsequent revisions.

It was the end of February and first few days of March 1938. Europe was tense with Nazi noises. Someone put me on to read James Bryce's *Holy Roman Empire* (1864). Nowadays a man might find it hard to get to the end. It could not put it down.

Bryce wrote it, when he had just graduated at Oxford. It was a young man's book, the sort of thing we nowadays forbid anyone to attempt, a vast theme of many centuries, with sweeping generalizations and a feeling for mighty forces in great events. How fortunate that the PhD was not yet invented when he took his degree. Reason says that we must be right to train specialists in historical method, the heart remembers Bryce and thinks of the richness of materials waiting for the young mind and wonders whether we are wise to swivel its eyes into such narrow heaps of documents; and the head replies, that to the world are given very few Bryces.

On March 2 1928 Pastor Martin Niemöller on a charge of misusing his pulpit was sentenced by a German court to seven months' gaol. On his release he was at once picked up by the Gestapo and taken to "protective custody" in the concentration camp at Sachsenhausen. In that moment of German history Niemöller looked from England like the European conscience standing on moral principle against tyranny; the freest man in Germany despite his confinement.

What was the moral basis of Europe which Nazis did their best or worst to overthrow? Bryce spoke, magically it then seemed, of the long tradition of civilization stemming from a threefold origin, in Christian morality and Greek liberty of mind and Roman justice. We looked for the League of Nations to guide the world into peaceful courses. Generations which only know the United Nations can have no sense for the yearning after the League which filled so many minds in the middle 1930s. And Bryce told how the memory of Rome was inspired by Christian conviction to create a new Roman Empire of the West which should be thought of as holy long before it was so called; as the centre of the civilized urge to control the wars of separated nations, and protect the weak, and order justice, and stand for a unity of Europe beyond its states or clans or tribes; and as a symbol or reminder of a common faith, and a common culture, and an abundant inheritance of shared traditions. And in the building of this international ideal, Bryce showed heroic figures, all the taller in stature because of the mist through which they loomed, a Charlemagne or an Otto or a Hildebrand or a Barbarossa.

On March 10 Schuschnigg, the Chancellor of Austria, announced a plebiscite on union with Nazi Germany, and there was gang violence in the streets of Vienna and of the city which then I loved above other cities, Innsbruck.

Was Germany irrevocably barbaric, as French writers like Chrétien Maurras reported, and true Europe was the Europe of the Latin races? Bryce told how Germany accepted the Roman and Christian tradition, and lent its vigour to create a continuity of that tradition, and became the heart of true Europe, a nation without

which Europe as we know it could not be. The portrait was idealized. The casualties died, like cowboys killed in earlier westerns, very clean. But Bryce never pretended that the Holy Roman Empire worked effectively as a system of government - decades afterwards I came to believe that he underestimated its utility as a structure during its later centuries. We learnt how inefficient is the mode of electing a president for life, when there are only seven electors and four of those are hereditary; how harmful to German efficiency the beckoning of the Italian dream; how war between Empire and Papacy came near to destroying both; how this mighty-sounding empire was at times the weakest of states; and how this symbol of order suffered more anarchy than states which were not symbolic.

Bryce painted a portrait of a political ideal which almost wholly failed to work - just like the League of Nations which at that moment we could see collapsing before two dictators. And yet, Bryce seemed to say, the search for the ideal was far more important than the political failure. It transmitted the concept of Christendom. It received and maintained the codes of Roman law. And above all, we need not despair if the world fell about us; because the cry for justice, and moral conviction, and the yearning of the peoples for a better way of life, were stronger and more enduring than the slaughter or despotisms of a single age. The civilized might be weak but in the end, more than once, they subdued their invader.

On March 11 Seyss-Inquart flew into Vienna to deliver to the Austrian chancellor Hitler's ultimatum. German divisions concentrated on the Austrian border.

Writing in 1866, Bryce distiked, and was not very historical about, Prussians. But beneath the book - was it really beneath the book, or was it what the book said to me a reader in those days? - was the message, not only that civilized Europe is more lasting than its conquerors, but that the Germans, by entering this tradition, were a deeply civilized people; that Nazi thugs could never claim, despite their bragging, to be the authentic heirs of old Germany; that the adjective *Holy Roman Empire*, despite Voltaire's mockery, was not meaningless, because something is sacred about just government and this was a vision of justice; and that moral structure and moral ease can and do endure despite the corruption of hierarchies responsible for guiding moral behaviour.

On March 12 German soldiers occupied much of Austria. Quite a number of Austrians committed suicide. The horror of Jews began in Vienna. Cardinal Rittner thanked God for a bloodless revolution.

The newspapers announced that the Nazis had arrested the Habsburg Archduke, alleging that he made derogatory remarks about the authorities. I was not surprised.

Owen Chadwick
The author is *Master of Selwyn College, Cambridge.*
This is the first of an occasional series in which distinguished academics and authors look back at the book which has influenced them more than any other.

Two thousand years ago this month Virgil suffered heat-stroke in Greece, where he had gone to spend three years on the final revision of his epic poem. Instead of resting, he decided to return to Italy; where he died in Brindisi on September 21, 19 BC.

The most difficult of the problems posed by the *Aeneid* lies in its abrupt close. Why does Virgil allow his civilized hero to slaughter Turnus when the Rutulian asks for mercy? And why does the epic end so precipitately on this high note of tension?

Aeneas and Turnus have fought the duel to decide the issue between the immigrant Trojans and the native Latins. Aeneas wounds Turnus, who lies prostrate at his feet. Turnus asks for mercy; Aeneas checks his favourable response when he sees the belt which Turnus wears. It had belonged to Pallas, the young warrior son of Evander of Pallanteum, the Greek foundation on the site of the future Rome. Pallas had led a contingent to aid the Trojans, but Turnus had slain and despoiled him; it is Aeneas's regard for the youth which leads him to reject Turnus's appeal. Then

*hoc dicens ferrum altissimo sub pectore condidit
ferulis aut illi solenniter frigore membra,
utique cum genitru fugit indignata sub umbras.*

"With these words in the heat of passion Aeneas buried his sword in the enemy's breast. Then Turnus' limbs relaxed in the cold of death, and with a groan his vital spirit fled in resentment to the shades below."

The duel is over, and so is the epic. What happened thereafter is left to our imaginations. This has intrigued or irritated many readers, and it moved a young man at Pavia in 1428 to round off the epic by composing a thirteenth book. Maffeo Vegio's supplement of 630 lines was often incorporated into subsequent editions of the *Aeneid*, and the work became even more celebrated when Sebastian Brant in 1502 illustrated it with six woodcuts.

In this thirteenth book, Aeneas receives the surrender of the opposing army of Latins. The body of Turnus is restored to his grieving father Daunus at Ardea. King Latinus, king of the Latins, ratifies the peace, and Aeneas marries Lavinia his daughter. The new city of the Trojans is marked out; Aeneas finally dies and is transported to the skies.

There is an amusing Scottish postscript to the story. When in 1513 Gavin Douglas, bishop of Dunkeld, had completed his great translation of the *Aeneid*, he claims that he was walking in the fields on a June evening, and that he fell asleep under a tree. He heard a voice, and before him stood Maffeo Veggio, who said to the bishop: "I bear thee no good will, in that thou hast rendered into thine own language the other 12 books all over Albion's isle, but of mine thou hast taken no heed." Douglas replied: "I have overspent my time on Virgil's volume. If I longer laid aside my pressing tasks, what would folk think? Baited me, father, there be those who hold that your book adds no more than doth a fifth wheel to a cart." But Veggio belaboured the bishop with a club until he promised to render Book Thirteen as well. Douglas's judgment of Veggio is clear: "Though his style be not like that of Virgil... means the verses are too regular and ingenious, too clear and unambiguously, too tarted and Ovidian."

Vegio's example was emulated by others between the fifteenth and nineteenth centuries; they are documented in Anna Cox Brinton's edition of Veggio. Such versifiers

presumably believe that Virgil has sold them short; they do not demand that every epic end, like Dante's *Paradiso*, with the Beatific Vision, but they point to the *Iliad*, in which Homer closes with Achilles' magnanimity in Victory. Or they adduce *Paradise Lost*; Adam and Eve are expelled from Eden, but they face the world's rigours with tranquillity and acceptance.

Virgil's epic does not end even with such consolations as Milton allows. Why does Aeneas refuse his disciplined self-control and refuse to spare Turnus, and why does the poem end there and then? The whole epic has traced the development of Aeneas from Homeric hero to Roman community leader. At Troy he learned that self-immolation was not the Roman way; on the journey westward he was taught the importance of labor and endurance; at Carthage he renounced the pleasures of sex and an alien security; in the underworld he was schooled in the secrets of the course of the world and the future destiny of Rome; and in Italy he has withstood the fury of hatred and war. All this has endowed him with the virtues indispensable for Romanitas, which becomes an important political catchword in the Augustan age.

Recent criticism offers three possible approaches to the poet's intention. The first is philosophical; Virgil is making a point about human limitations. Though Aeneas through his experiences comes as close to human perfection as can be envisaged, he never attains the Stoic ideal of the control of the baser emotions by reason. On this interpretation, the final scene, like some earlier scenes in the *Iliad*, represents a relapse in Aeneas's conduct. It is a warning against the notion of the perfectibility of man; even the noblest of men can fall below his own standards under emotional pressures.

The second possible approach is the historical explanation. Virgil has not invented the sequence of the warfare in Italy, as can be observed from the historical accounts, especially that of Dionysius of Halicarnassus, though he has certainly adapted the legends with originality. In the "historical" account, Turnus does not die in a final duel with Aeneas, but in the course of battle against the joint forces of Aeneas and Latinus a year after the Trojans' arrival. None the less, Virgil has retained the tradition that Turnus dies in battle.

But there is a broader historical factor which made the death of Turnus inevitable. Turnus represents an outmoded political order; as long as he lives, the fusion of immigrant Trojans and native Italians is threatened. His death symbolizes the Italian resistance to the new order which will bring Rome into being. Here Virgil is forging connections between past and present, between the embryonic Rome under Augustus and the mature Rome under Augustus.

But the third and strongest influence upon the poet beyond the philosophical and historical is the literary consideration, the discipleship of Virgil towards his master Homer. The entire *Aeneid* is a series of Homeric patterns; Homer dominated Virgil's creative imagination. The deployment of Homeric situations allows Virgil to build into the portrayal of Turnus a sustained irony. The reader knows that Aeneas

is to become the second Achilles, playing in Latium the role that Achilles played at Troy. Turnus is cast as the second Hector; the irony lies in the fact that until the final stages he believes himself to be the second Achilles, the hero who will once again crush the Trojans. In this Homeric patterning, which dominates Virgil's artistic design, Turnus must die in the final duel because Hector died in the final duel.

The whole of Virgil's final scene is modelled on the Homeric duel. Turnus is a worthier opponent than Hector, but the gods make it crystal clear that he cannot win. A critical difference between the two accounts is that Achilles' spear strikes Hector above the corselet in the jugular, whereas Aeneas wounds Turnus below the corselet in the thigh. Virgil thought it necessary that Turnus should not be mortally wounded by the blow from Aeneas's spear. It is the spear-wound in the jugular that kills Hector; in Virgil Turnus is not mortally wounded, but begs for mercy and is dispatched by the sword.

In the *Iliad*, the death of Hector, the desecration of his corpse by the gleeful Greeks, the parading of the corpse around the walls of Troy are not the end of the story. King Priam enters the Greek camp unarmed to beg for the body; Achilles relents and Homer ends the epic on this high note of magnanimity. But all these events after the slaughter of the hero would have been unthinkable in the Roman context of the *Aeneid*. A Homeric ending was not an option for Virgil; he could not have allowed his Roman hero to indulge in that barbaric behaviour which was the precondition of the magnanimity of Achilles.

As we probe the psychology of the poet, this literary motive for the abrupt close of the epic takes precedence; Homer exercised such authority over Virgil's creative imagination that the Homeric triangle of Achilles, Hector and Patroclus shaped the climax, made it inevitable that Turnus should die, and compelled Virgil to bring his poem to an abrupt close. The historical motive remains relevant; Virgil remains faithful to the legendary accounts with the death of Turnus, but more important he bridges the gulf between past and present with the slaughter of the opponent to the new political order. Finally comes the philosophical motif, the epic as a statement about the nature of human existence; the man schooled in all the traditional virtues may none the less become a victim to emotional pressures.

One final observation may be made about the precipitate close with the death of Turnus. We note that in the structure of the whole poem, many of the individual books end with a death. The death of Turnus at the end of the epic completes the pattern; the catalogue offers a sombre reflection on the conditions of human life. Virgil had lived through the last years of the Republic when virtually every leading figure in the state died by violence. Pompey, Caesar, Cicero, Cato the younger, Brutus, were all killed or committed suicide; it was an achievement in the lifetime of Virgil for a leader to have died in bed. The bleak end of the *Aeneid* is a pessimistic reflection on the conditions of Roman living; death, violent death is a tragic forerunner to change in the political and social order.

The author is professor of humanly (Latin) at the University of Glasgow.

BOOKS

Commitment to mythic truth

by David J. Levy

Autobiography, volume one, 1907-1937: Journey East, Journey West by Mircea Eliade
translated by Mac Linscott Ricketts
Harper & Row, £12.50
ISBN 0 06 062142 7

A History of Religious Ideas, volume two: from Gautama Buddha to the Triumph of Christianity by Mircea Eliade
University of Chicago Press, £17.50
ISBN 0 226 20402 2

Structure and Creativity in Religion: Hermeneutics in Mircea Eliade's Phenomenology and New Directions by Douglas Allen
Mouton, DM49
ISBN 90 279 7594 9

Mircea Eliade is the doyen of historians of religion. A tireless scholar and prolific writer, his works have achieved a wide circulation beyond as well as within the academic community.

Now 75, Eliade was born in Bucharest. He published his first article, "The Enemy of the Silk-worm", in the spring of 1921, and by the age of 18 had one hundred published pieces to his credit. After graduating from Bucharest University he was given a scholarship by the Maharajah of Kassimbazar which enabled him to travel to India where he spent four years from 1928 to 1931. The first three studying with Professor Surendranath Dasgupta in Calcutta and then six months in a Harvard ashram in the Himalayas.

Time and again in his writings Eliade has drawn attention to the importance of his Indian years in his intellectual and, no less important, spiritual development. For if the young man's interest in the nature of religious experience and the meaning of religious symbolism preceded his journey east, it was India which provided him with the models of spirituality that have served him as guides in scholarship as in life. As he writes in a foreword to Professor Allen's new study:

My encounter with this traditional culture at an age when spiritual discoveries can still enrich and transform one's personality has had important consequences over and beyond my work as an Indian scholar. Indeed, the understanding of religious symbolism as it is lived at the level of the people has helped me to better grasp the symbolism still alive in my own tradition, that of an Eastern European people.

Indian spirituality possesses an exemplary status for Eliade. This is both the clue to the deeper understanding of his work and a major source of difficulties to which I shall return. For Eliade sees this spirituality in a dual light. The symbols in which it is expressed serve to order worldly experience - to present the world as an ordered cosmos - but the goal of the religious quest is the achievement of liberation from the workaday human condition. "India", he wrote in his journal, "was obsessed by freedom, absolute autonomy. Not in a naive manner, but taking account of the innumerable conditions, studying them objectively, experimentally (Yoga), and making a real effort to find the instrument that would permit them to be abolished or transcended. Even better than Christianity, Hindu spirituality has the merit of introducing freedom into the cosmos." The quest for liberation, which may, Eliade believes, lead the adept to a higher state of being, is of the greatest importance in the economy of his thought. For not only is existence given its sole secure value by the religious perspective, but a life lived in alienation from religious meanings and acceptance of his faith. But the sense of existential involvement in his subject matter (what one could call commitment to mythic truth) is as strong in his public works of scholarship, where one of his purposes is to confront the reader with the dimension of mean-



Mircea Eliade

ing conveyed by ancient myth while urging him to question the superficially modern myth of progress, as the meaning of history. The experience of Indian spiritual achievement, which Eliade carries with him through life, provides more than a model for the interpretation of disturbing events; it is his assurance that the search for trans-historical meaning, the only real meaning in the face of historical terror and the threat of extinction, rests on something more than self-deceiving will.

In *Structure and Creativity in Religion* Douglas Allen presents a philosophically sophisticated exposition and defence of Eliade's approach to the study of religion. His book is divided into three parts. In the first he provides an informative history of methodological approaches in the history of religions, from the natural-myth school of Max Müller and the work of the British anthropologists, more careful than it sometimes seems, rendered with the talent of one who is not only an academic writer but a novelist of considerable distinction. Eliade, the story teller, knows how to spin a tale and convey the experience of his characters, as any reader of his great novel *The Forbidden Forest* can testify, and these narrative skills are well employed as he expounds the rich variety of doctrines and beliefs through which man have expressed their sensed relationship to transcendent powers.

In the first of what will eventually be three volumes of autobiography Eliade writes of the first thirty years of his life. The period covered includes not only his childhood, education and first literary successes, but the stay in India - a stay as emotionally traumatic as it was spiritually formative - and the years of young manhood in prewar Romania, where Eliade became a central figure in the intense intellectual life of a nation seeking a way of its own in a world that threatened its very existence as an independent entity. His pages are filled with names, some familiar, most not. The present forces and influences in Eliade's life, the vivid cast of drama that will draw its audience, justly or not, mainly because of the future eminence of its central figure.

Eliade makes a connexion between his interest in Indian spirituality and his deeply-felt Romanian identity. In his conclusion to his commentary on the ballad "Mioritza", which Allen quotes, he writes movingly of the people as a nation "situated at the very crossroads of invasion... or in the immediate neighbourhood of military powers dynamized by imperialistic fanaticism. There is no source of difficulties to which I shall return. For Eliade sees this spirituality in a dual light. The symbols in which it is expressed serve to order worldly experience - to present the world as an ordered cosmos - but the goal of the religious quest is the achievement of liberation from the workaday human condition. "India", he wrote in his journal, "was obsessed by freedom, absolute autonomy. Not in a naive manner, but taking account of the innumerable conditions, studying them objectively, experimentally (Yoga), and making a real effort to find the instrument that would permit them to be abolished or transcended. Even better than Christianity, Hindu spirituality has the merit of introducing freedom into the cosmos." The quest for liberation, which may, Eliade believes, lead the adept to a higher state of being, is of the greatest importance in the economy of his thought. For not only is existence given its sole secure value by the religious perspective, but a life lived in alienation from religious meanings and acceptance of his faith. But the sense of existential involvement in his subject matter (what one could call commitment to mythic truth) is as strong in his public works of scholarship, where one of his purposes is to confront the reader with the dimension of mean-

tinually experience various 'primordial' existential situations; they continually encounter various archetypal kinds of existential crises involving suffering, death, etc; they continually utilize certain paradigmatic models for resolving these crises, as seen in such religious structures as those of Tao Chi Minh. Westerners sympathetic to these figures have, he tells us, "almost always emphasized the 'correct' economic and political strategies formulated by... (such) revolutionaries. And certainly the Vietnamese and Chinese struggles would not have been successful without them. But to someone who is sensitive to the phenomenological analysis of an Eliade - and who is sensitive to such economic and political factors, in a way that Eliade is not - the Vietnamese and Chinese experiences will reveal many other dimensions of reality... The interpreter will decipher profound mythic and symbolic structures in the thought of Mao Tse-tung and Ho Chi Minh; essential symbolisms which key in with the deepest levels of reality and allow the integration of the fragmentary, meaningless, and even terrifying aspects of existence into a coherent, meaningful, purposeful whole."

Perhaps he will. After all, if Eliade is right, such structures are almost inevitably present, even if covertly, in human thought. However, it seems to me a mark of dangerous political naivety not to recognize, as Eliade with his love of a lost Romanian homeland and the cultural opportunities which were lost with it in the 1940s surely does, that a "coherent, meaningful, purposeful whole" may itself crystallize in institutional form the spiritually deadening forces of ideological fanaticism, the most specifically modern form of historical terror. Allen implies that Eliade is blind to the political dimension of human affairs. This is far from the truth. What seems certain is that he would be more capable than his undeniably perceptive and articulate admirer of distinguishing what he calls the quest for totality from its ersatz form, political totalitarianism.

David J. Levy is lecturer in sociology at Middlesex Polytechnic.

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BOOKS

The cost of defence

The Knowledgeable State: diplomacy, war and technology since 1830 by Maurice Pearton
Burnett Books, £12.95
ISBN 0 09 147230 X

The title of Mr Pearton's book gives little indication of its contents, and the subtitle is not much more helpful. The work examines the interaction between the military requirements of the state and the resources made available to it by technology during a century and a half of increasing industrialization. Since the thesis of the book is the developing control of the state over industry, science and technology so as to enhance its capacity for survival in an increasingly competitive world, some such title as *The Warfare State* might have been more appropriate. Unfortunately that has already been used.

Moreover, such a title would suggest that this is one of those all too numerous studies in denunciation whose authors believe that they have only to describe the growth of "the military industrial complex" in order to condemn it. This attitude is, as Mr Pearton himself shrewdly observes, the product of a specific, largely Anglo-Saxon cultural background and one not universally shared even among western democracies. He himself is content to trace how that complex has developed, specifically in western Europe, during the past two centuries, and the impact of this development on the character of warfare, the growth of industry, science and technology, and the structure of international politics. He does so without overclaiming it, or suggesting that things might have been better if they had been otherwise. But this development, he insists, was the result of conscious decisions and choices; not of any ineluctable "imperatives" inherent in the nature of the state, of technology, or anything else.

Mr Pearton shows how during the period he surveys warring has passed through three phases. During the first, which lasted until 1870 - in some respects indeed until 1914 - traditional land-based elites still controlled the state and more specifically its military machinery, and geared the new capabilities presented by industrialization into a concept of war affecting only a very limited sector of society. Mass conscription began to break this down before 1914, but it was only the impact of the Great War that introduced the second phase; the mobilization of the entire industrial system, and of the raw materials necessary to its functioning, for a conflict of attrition, not between armies, but between entire societies.

The third phase, introduced by the Second World War, is one in which the state not only mobilizes its full technical and industrial resources in wartime but shapes and directs them in peace, extending its control to the outer frontiers of research - especially nuclear research. Under such conditions, suggests Mr Pearton, the old distinction between "war" and "peace" have disappeared. States are now in a constant condition of Hobbesian conflict in which the introduction of overt force changes the form but not the nature of their relationship.

Mr Pearton is at his weakest in discussing international relations, and his thesis, that we have passed from a "traditional" society in which war and peace were distinct and contrary conditions to one in which they are indistinguishable, is not convincing. Throughout most of the history of Europe (to say nothing of the rest of the world) this sharp distinction was rarely more than an aspiration, and the laws and customs imposed to enforce it were honoured more in the breach than in the observance. The limited social groups involved in warring and the absence of distinction between civil and military technology made it possible, for

armed conflict to be continuous and virtually normal throughout most of European history. It was the development of specific military technologies in the eighteenth and nineteenth centuries that made possible the professionalization of the military, its differentiation from the "civil" sector, and the concept of distinct "peacetime" and "wartime" activities. The concept of the abnormality of war is a very recent, and a very localized, phenomenon. As for his suggestion that war is now endemic, the nature of modern weapons leaves one in no doubt whether a war is going on or not; something that it was quite possible, in western Europe, as late as the eighteenth century, to forget.

It is a pity that Mr Pearton should have introduced this dubious thesis into his work, because it is in no way central to the book. His real theme is the developing relationship between weapons-related industry and technology on the one hand and the state apparatus on the other; a relationship that deepened from a symbiotic to identify, from the early rather tentative contacts between Alfred Krupp and Eugene Schneider and William Armstrong and their respective governments to the position where, when governments not only purchase the weapons but design them, control their production and carry out the fundamental research that makes that production possible.

In the course of his story Mr Pearton carries out much useful debunking. These nineteenth-century "merchants of death", he suggests, had little or no influence over the governments they served. (The bellicose leaders of the Balkan States certainly did not need Sir Basil Zaharoff to persuade them to fight one another.) Indeed, by ensuring that no state got left behind in the competitive improvement of armaments they maintained a balance that did more to preserve than to disturb the peace of Europe; an interesting thesis that might be pondered by those who

now deplore the arms trade to the Third World. Anyway the golden age of these independent *fourms scous* came to an end in 1914. The enormous demands they became little more than the agents of their governments. In the case of the aircraft industry they were indeed the creation of their governments with no possibility of independent existence. The expansion of the British and French governments between the wars that independent aircraft industry would be able to provide on demand all the needs of a modern air force does much to explain their failure to match German rearmament in the 1930s.

Although this developing relationship comprises the core of Mr Pearton's book, he has much of interest to say about the influence of industrialization on the planning and conduct of war. He shows how technological limitations and opportunities determined war plans - the "time-table" war of 1914, the *Blitzkrieg* of 1939-40 - and, through these plans, international relations themselves. Today, he suggests, the sheer cost of defence has reversed political priorities. Governments have to ask, not what their interests require them to defend, but how much defence they can afford. But again, there is nothing very new about this. A "great power" might be defined as a state that does not have to ask that question, and there are still two such powers in the world today.

For all its imperfections, this is an immensely rich and suggestive book, based on wide reading and deep thought. But even a non-academic will deplore the absence of references and the banality of the footnotes.

Michael Howard
Michael Howard is Regius professor of modern history at the University of Oxford.

Status symbols

The Automobile Revolution: the impact of an industry by Jean-Pierre Bardou, Jean-Jacques Chanaron, Patrick Fridenson and James M. Vaux
University of North Carolina Press, £15.00
ISBN 0 8078 1496 2

This historical account of the worldwide development of the automobile and the automobile industry affecting only a very limited sector of society. Mass conscription began to break this down before 1914, but it was only the impact of the Great War that introduced the second phase; the mobilization of the entire industrial system, and of the raw materials necessary to its functioning, for a conflict of attrition, not between armies, but between entire societies.

A contrast is drawn between the relative design and construction of the automobile since 1914, and the dramatic impact on industrial and labour organization of the moving assembly line introduced to automobile production before 1914, followed by fully automatic production lines after the Second World War. International competition was accompanied by increasing division of labour among a diminishing number of multinational firms in which centralized management and the strategy of model diversification came to be regarded as necessary conditions for survival.

The broad outline of national divergencies within a general process of convergence is delineated with detail and clarity, but the lack of an adequate statistical framework (eight of the 17 tables and charts refer to the period after 1950) and relatively few footnotes inevitably induced scepticism of some of the generalizations in what is claimed to be more than a textbook. There are discrepancies, too; for example, while there is a discussion of international differences in profitability after 1945, this is absent for the earlier period. A major theme of the section on the interwar years is the emergence of the motor car as "a symbol and

motive force for capitalist growth", although the author shrinks from doing more than refer, without supporting evidence or critical assessment, to the Flink thesis that the automobile revolution was critical in precipitating the Great Depression in the United States. A more serious omission, however, is an analysis of the spectacularly rapid ascent of the Japanese motor industry to world leadership, a theme which merits only three out of 100 pages on the post-1945 period.

Assessing the effects of the "automobile revolution" requires a distinction between the effects of the automobile (and automobile production and labour relations) *per se*, and the consequences of modern industrial technology, organization, structure, and management in any capitalist economy. The distinction is acknowledged, but except in the obvious areas of safety and pollution the analysis fails to concentrate upon the effects which may be regarded as unique to motor vehicles and the motor vehicle industry.

About six pages deal with "Automobiles and social change" in the interwar period and a brief section considering "The automobile under fire", since the 1960s is hardly adequate, especially because of the level of generalization which occasionally combines banality with contradiction. For example, the dubious claim that the motor car illustrates "the classic example of a luxury purchase whose spread tends to reduce its attractiveness" hardly explains the steady rise in the number of motor vehicles per thousand population shown in one of the book's few tables.

Finally, readers might be interested to learn that the reason why so many intellectuals drive clapped out bangers instead of a Lotus or a Lamborghini is because "they try to differentiate themselves from those of the same or higher economic levels, but at a lower cultural level, by buying less prestigious and cheaper cars than their incomes would permit...".

Roy Church
Roy Church is professor of economic history at the University of East Anglia.

BOOKS

Fertility decline

Theory of Fertility Decline by John C. Caldwell
Academic Press, £11.80
ISBN 0 12 15580 X

A central preoccupation of population science is the attempt to explain fertility declines of the kind that brought family size in Britain down from over five children in Victorian times to around two children today. Such declines have been experienced by all western countries and are in process in a number of developing countries.

To date, attempts at generalization, such as those invoking the effects of industrialization or the reduction of infant mortality, have foundered on the fact that fertility declines have occurred in a variety of different social and economic circumstances. Nevertheless, the quest for a general theory continues, and prominent among recent candidates has been the "wealth flow theory" of John Caldwell, professor of demography at the Australian National University. This book is a collection of the papers in which he has developed his theory over the past few years.

Caldwell uses the term "wealth flow" to refer to the supply of anything of economic value, including food, present and future security, even the fetching of slippers. He argues that wherever society's fertility is high and stable, the reason is the existence of a well-founded belief that, over a lifetime, there is a net inter-generational wealth flow from children to their parents or other powerful members of an extended family. The onset of fertility decline means that the next inter-generational wealth flow has been reversed, making high fertility, indeed any fertility, economically disadvantageous. Afterwards the only reason for having children is the unique form of pleasure they provide as members of an independent nuclear family.

In the West, according to Caldwell, it was universal compulsory schooling which usually caused the reversal, by reducing the child's potential for work inside and outside the home, increasing the cost of children, establishing the idea that children were dependents, and accelerating cultural change. Caldwell believes that mass schooling will also prove the crucial factor in contemporary developing countries, both for the reasons outlined above and because, it propagates western values, especially the idea of the nuclear family.

Caldwell has an enterprising and independent attitude to population research. He is impatient with demographers for ignoring the potential contribution of other disciplines to the explanation of demographic behaviour, and he is even more impatient with leading theorists of social and economic change for their failure to take into account major demographic transformations. His own zest for crossing disciplinary boundaries has helped him illuminate the ways in which high fertility can serve material interests, and the ways in which the import of western ideas can help to undermine traditional family structure in developing countries. However, his insistence that fertility decline is always explained by a reversal of wealth flow prompts questions which are not adequately answered by his analysis.

Perhaps high fertility is explained by upward wealth flow in Nigeria, where Caldwell has done much of his work, but what economic advantages explain it in countries with severe land shortages and rising unemployment? What constraint on rational behaviour would mean that a reversal rather than merely a reduction or prospective reduction of net wealth flow? If economic advantage explained high fertility in pre-decline Europe, what sustained the fertility-reducing pattern of late marriage long characteristic of Europe before the fertility declines? When attempt-

ing to identify the determinants of change is it reasonable to abstract mass schooling from the cultural, economic and political conditions which make such schooling feasible and economically advantageous? Why did fertility start to decline so early in France, in the absence of conditions held to explain the onset of decline in Britain and elsewhere a century later?

Although Caldwell has made it a productive subject of research, inter-generational wealth flow between family members was not a happy choice for the foundation of a general theory of fertility decline. A general theory must explain a fundamental change in the way societies sustain the interdependence of production and reproduction. The economic implications of reproductive behaviour in different circumstances, and not merely the implications perceived by parents, would have an important place in the theory. At least equally important would be the socially engendered commitment to reproduction which, in developed and developing societies, exists independently of parents' perceptions of wealth flow.

John Simons
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Return to Ur

Ur "Of the Chaldees": the final account of Excavations at Ur by Sir Leonard Woolley
revised and updated by P. R. S. Moore
Herbert Press, £11.95
ISBN 0 906969 21 2

Few archaeological sites have attracted public attention so firmly or so long as Ur, a very important Sumerian site 160 miles south of Babylon and 6 miles south of the modern bed of the Euphrates. This is no doubt due mainly to the sheer quantity, variety and splendour of the discoveries there, and partly to the biblical associations claimed for some of them (it was reputed to be the early home of Abraham). However, no small credit for the popular interest must be given to Leonard Woolley himself, who produced a detailed account of his enormous undertaking which was none the less easily accessible to a non-specialist audience.

This originally appeared as *Ur of the Chaldees*, and was revised later by Woolley himself under a new title, *Excavations at Ur*. For this latest revision the old title is re-adopted with the subtle addition of quotation marks to symbolize current disbelief in the biblical correlations (silt deposits once attributed to The Flood are now ascribed to a flood, and associations with Abraham questioned). But this matters little, for

Ur's importance, as one of the most extensively excavated and published sites in the Middle East, remains. It deserves to be presented afresh as a significant portion of man's history and a memorial to a remarkable archaeologist.

Roger Moore's admirable revision and updating of Woolley's account manages to retain the flavour of excitement and discovery in the original, while incorporating the results and amendments of more recent research. These are most extensive in the earlier phases. Most readers, I would guess, would not be able to detect the hand of the reviser without direct comparison with the earlier versions. The book is well illustrated throughout, and the colour plates are particularly splendid. It is still a most readable account of the site and a worthy successor to the previous editions.

Nevertheless, it is impossible to avoid the impression that the book is something of a period piece, or to resist the suspicion that an author starting from scratch today would have written a very different book. What mainly interested Woolley about the site would not necessarily be the focus for modern archaeologists. The Middle East has in recent years seen many advances in our understanding of the transition of society and economy from early farming to urban life and militaristic empires, but little of this comes through.

It is true that the Uruc period, which witnessed the first growth of complex urban settlements and which has therefore been of particular interest recently, is not well documented at Ur, but it is very difficult to see the site in its context, both geographically and socially; too often it seems like monumental architecture inhabited by priests and kings, but divorced from the mass of ordinary people. Woolley's book is still at heart a story of discovery (and a very good one), rather than an interpretation of how Ur worked and how the organization of its society changed through the millennia. He did not set out to write such a book, and at the time of his excavation such questions could barely have been formulated, let alone answered, but it may now be opportune for someone to attempt such a task.

Ur remains a site of the first importance. Despite, or possibly because of, the massive publication of archaeological finds and written texts, a comprehensive assessment of the data has yet to be written. It is good to have Ur brought up to date every twenty-five years or so, and perhaps in another twenty-five years research will have advanced enough to warrant another version.

T. C. Champlin
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The projected second edition of the entire series *Reproduction in Mammals*, edited by C. R. Austin and R. V. Short, opens with the publication of Book 1 on *Germ Cells and Fertilization* by Cambridge University Press at £15 and £5.95.

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Special Book Numbers for October

- Oct 1 Biological Sciences
- Oct 8 University Presses
- Oct 15 English
- Oct 22 Sociology
- Oct 29 Maths and Physics

NEW FROM BUTTERWORTHS

POLLUTION AND THE BIOLOGICAL RESOURCES OF THE OCEANS

A Path in All-Union Research Institute of Marine Fisheries and Oceanography, Moscow, USSR

This book presents a systematic survey of ecological, toxicological and biogeochemical research into the effects of the major classes of toxicants on the marine environment.

The book establishes threshold and toxic pollutant concentrations for the principal groups of marine species, paying particular attention to those of commercial importance. It also presents the first derived values for the maximum permissible concentrations of widely distributed pollutants. Finally, it makes some practical recommendations for protecting the marine environment.

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GEOGRAPHY OF THE BIOSPHERE

Peter A. Furley, MA, DPhil, Walter W. Newey, MA, BSc, PhD
Both University of Edinburgh

In *Geography of the Biosphere* the authors describe the basic characteristics and distribution of the earth's principal plant communities, their soils and associated animal life, and their evolution.

Concentrating on the major terrestrial and aquatic biomes the book progresses from the alpine environment through temperate forest and grassland to marine and freshwater environments. The authors' in-depth approach makes use of systems analysis and modelling, and these ideas, together with other fundamental concepts, are introduced in the first few chapters.

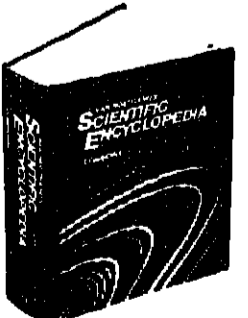
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BOOKS

ECONOMICS

Surplus value

New Liberalism: the political economy of J. A. Hobson by John Allett

For most of this century John Hobson (1858-1940) has looked like one of the unlucky also-rans of intellectual history...

Recently however, this viewpoint has changed. Several of Hobson's works have been reprinted, and his social and political thought has been the subject of important books...

The most important section of the book is a chapter on "Society as a Maker of Values", in which Allett argues that the pivot of Hobson's thought was "organic surplus value"...

Unemployment in France, the Federal Republic of Germany and the Netherlands: A survey of trends, causes and policy options, by W. van Ginneken in collaboration with M. Garzul

This monograph examines three groups of factors: those affecting the supply of labour, such as the "baby boom" and the increased labour force participation of women...

Poverty and the Impact of Income Maintenance Programmes: Case studies of Australia, Belgium, Norway and Great Britain by Wilfred Backerman in collaboration with W. van Ginneken, R. Szal and M. Garzul

INTERNATIONAL LABOUR OFFICE Branch Office: 96-98 Marsham Street London SW1P 4LY

Nevertheless, Hobson was a genuinely original theorist in certain fields. By any standards his challenge to Say's theory of a full-employment equilibrium was a remarkable intuitive achievement...

But most readers will be most intrigued by Dr Allett's account of "organic surplus value". For Social Democrats in search of a theory, here is one possibility...

José Harris

Dr Harris is a fellow of St Catherine's College, Oxford.

Opening an account

Lloyds Bank 1918-1969 by J. R. Winton Oxford University Press, £15.00

Business history has been well served by commissioned studies of the development of the English clearing banks. A second generation of these monographs is now appearing...

The standards set by previous authors were high. This present volume can be placed alongside the others but it is, in many respects, a different style of history...

This problem is made explicit with regard to advances. Only three specific cases are considered and in two of these the details of the loan transactions have already appeared in print...

The historian's lot is usually eased by opportunities to chart dramatic change - say either rise or decline; Lloyds' long term development between 1918 and 1969 was, however, characterized by stagnation...

This conclusion provides a useful starting point for any subsequent historian who undertakes the task of considering Lloyds' fortunes over the last quarter of the twentieth century.

P. L. Cottrell

P. L. Cottrell is lecturer in economic history at the University of Leicester.

A. R. Prest and D. J. Coppock's The UK Economy: a manual of applied economics has been published in its ninth edition by Weidenfeld & Nicolson at £15.00 and £8.95.

Volume XXVIII of the collected writings of John Maynard Keynes has been published for the Royal Economic Society by Macmillan at £20.00.

NOTICE BOARD

Appointments

Colleges, Polytechnics

Michael Seymour has been appointed deputy principal of Denmas College, the adult education establishment set up and run by the National Federation of Women's Institutes...

General

Dr I. Helen Muir, director of the Kennedy Institute of Rheumatology, has been appointed a Wellcome Trustee from September 1, 1982.

Open University programmes Sept 25 to Oct 1

Saturday September 25

- 6.00 Systems Performance, Human Factors and System Failure: Mental Health - Whittingham (DE22; prog 13)
7.18 Ecology, Historical Ecology: Whittaker (DE22; prog 13)
7.40 The Nature of Chemistry: Conformation of Protein (1) (S204; prog 31)
8.08 Mechanics and Applied Calculus: Rocket and Orbit Equations (MST282; prog 15)
8.30 Science Foundation Course: Quantum Theory: Electrons and Photons (S10; prog 24)
8.55 Social Science Foundation Course: People and Society (S10; prog 24)
9.00 Maths Foundation Course: A Non-Euclidean Universe (M101; prog 26)
9.48 Research Methods in Education and Technology: The Future of Alternative Technology (T282; prog 11)
10.10 Engineering Mechanics, Thermofluids and Energy: Gas and Steam Turbines (T233; prog 10)
10.25 Telecommunication Systems: Loudspeaker Telephones (T231; prog 15)
11.00 Plant Physiology: How Plants Grow: How Plants Avoid Stress (S203; prog 31)
11.28 Science and Belief: From Darwin to Einstein: The Twentieth Century Novel and Its Legacy: The Novel and the Human Image - A Personal View (A112; prog 16)
12.18 Research Methods in Education and the Social Sciences: Reporting the Findings (DE304; prog 11)
12.40 Principles of Chemical Processes: Zinc (S1294; prog 16)
13.05 Physical Chemistry: Concepts and Case Studies: Too Much of a Good Thing (S247; prog 11)
13.20 Psychology: Prey for the Professor (S304; prog 15)
RADIO 4 (VHF) 6.58 The Control of Education in Britain: Funds and Control (E222; prog 10)
6.58 Modern Art and the Present: Style and Social Implications: The Impact of American Pop Culture in the Films (A251; prog 16)
6.58 The Twentieth Century Novel and Its Legacy: "Crow" (A103; prog 15)
6.58 Personality and Learning: Freudian Analysis (E231; prog 10)
7.18 Microprocessors: Paving the Way (D222; prog 12)
7.38 Food Production Systems: Tying up the Ends (T273; prog 8)
22.20 Contemporary Issues in Education: "AD 2025" Part 2: "A New Xmas" (E201; prog 19)
23.40 Greece 478-336 BC: Aristotelian View of Life (A293; prog 15)
24.00 An Aging Population: Demographic Aging and Economic Dependency (P242; prog 16)
00.20 The 19th Century Novel and Its Legacy: The Novel and the Human Image - A Personal View (A112; prog 16)
00.40 History of Mathematics: A Review of the Calculus Option (A4289; prog 11)
RADIO 4 (VHF) 6.58 Culture, Language and Culture (U203; prog 9)
7.18 Work, Community Work and Society: Women's Aids Can the Law Help? (DE208; prog 15)
7.38 Enlightenment: "Les Liaisons Dangereuses" (A204; prog 31)
Monday September 27
RADIO 4 6.00 Management and the School Shortfall: School Meeting a Need (E233; prog 5)
7.05 Mathematical Models and Methods: Waves (M234; prog 20)
7.30 Politics, People and Administration: Ministers' Offices/Parliament/Police (D336; prog 8)
RADIO 4 (VHF) 6.40 Maths Foundation Course: A Non-Euclidean Universe (M101; prog 26)
7.08 Materials under Stress: The Turbine Blade (T273; prog 8)
7.30 Fundamentals of Human Geography: Who Plans Eating? (D204; prog 16)
8.08 Environmental Health: Public Health, Antibiotics - A Problem Product (P272; prog 8)
8.08 Decision Making in Britain: The Crossman Legacy (D203; prog 16)
RADIO 4 (VHF) 6.58 Biology, Brain and Behaviour: The Social Primates: Drawing Up (SD28; prog 15)
Sunday September 26
RADIO 4 6.58 Elements of Music Instrumentation (A241; prog 8)
7.18 The Earth: Structure, Composition and Evolution: Early Earth (S203; prog 15)
7.40 Fundamentals of Human Geography: Who Plans Eating? (D204; prog 16)
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Tuesday September 28
RADIO 4 6.40 Personality and Learning: Classroom Interaction (E201; prog 10)
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7.08 Science Foundation Course: Quantum Theory - Standing Waves and Energy Levels (S101; prog 24)
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17.10 Curriculum Design and Development: No Hope Without a Future (E203; prog 25)
School Broadcasting Council (E203; prog 10)
RADIO 4 (VHF) 6.58 Contemporary Issues in Education: "AD 2025" Part 2: "A New Xmas" (E201; prog 19)
6.58 English Literature: British Urban Perspectives (A232; prog 8)
22.20 Fundamentals of Human Geography: British Urban Perspectives (A232; prog 8)
23.40 The Digital Computer: Microprocessors (TM221; prog 17)

Noticeboard is compiled by Patricia Santinelli and Mita Goldie

Continuing Education

The Department of Industry's Warren Spring Laboratory is to hold its eighth training course in fluid rheology at the Laboratory at Stevenage from November 8-12, 1982.

Corrections

In THE TIMES August 27 grants awarded to Heriot Watt University departments were wrongly attributed to Edinburgh University.

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Universities

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PROFESSORSHIP IN INDUSTRIAL CHEMISTRY
The Department of Materials Engineering and Industrial Chemistry has a faculty establishment of 14 involved in teaching degree and post-graduate courses in Industrial Chemistry and in Materials Engineering and also in chemistry and materials courses for other programmes of study.

The Professor will be the academic leader in the chemistry area and should have demonstrated interest or experience in high resources, manufacturing or chemical industry. Teaching and research interests should be in areas of applied chemistry or chemical engineering.

SENIOR LECTURERS/LECTURERS/ASSISTANT LECTURERS IN COMPUTER ENGINEERING
Applicants should have expertise and experience in one or more of the following areas: operating systems, systems software, high level language compilers and interpreters, computer hardware, interface, microprocessors, networks, communications, networks. Candidates with microcomputer and microprocessor expertise will be favoured.

ELECTRONIC ENGINEERING
Candidates should have significant experience of analogue and digital circuit design and implementation. Candidates with expertise in industrial applications including transducers, instrumentation, signal conditioning, data transmission, modern power electronics and electronic production techniques are particularly sought.

MECHANICAL ENGINEERING
Applicants should have broad industrial/research experience in one or more of the following areas: stress analysis, mechanics of fluids, heat transfer, combustion technology, energy technology and computer aided design (CAD). A strong orientation to the use of computers in research and teaching would be an asset.

INDUSTRIAL DESIGN
Experience is required in designing for production and in conceptualising engineered products with high aesthetic standards. Applicants will be expected to have a defined research interest in subject areas such as product design, ergonomics, value engineering and variety reduction. A background in engineering itself is a requirement.

PRODUCTION ENGINEERING
Applicants should have expertise in the areas of theory of manufacture, computer aided manufacture (CAM) and industrial engineering. A strong background in industry and research is desirable.

Appointments to the above positions may be made at Senior Lecturer, Lecturer or Assistant Lecturer level depending on the qualifications and experience of the persons appointed.

ASSISTANT LECTURER IN APPLIED MATHEMATICS
Experience in applications of mathematics is required. Applicants with a background in numerical analysis and computing or in mathematical modelling of non-physical systems will be given preference. However, applicants with expertise in other areas of mathematics will also be considered (Assistant Lectureship only).

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Application material available from the Personnel Office, The National Institute for Higher Education, Limerick, Ireland, should be completed and returned by 22 October, 1982.

UNIVERSITY OF ZIMBABWE
Applications are invited for the following posts:

LECTURESHIPS/SENIOR LECTURESHIPS (2 posts)
DEPARTMENT OF BUSINESS STUDIES
(Available 1st January 1983)

(a) Business Mathematics and Business Statistics
Applicants will be required to teach Business Mathematics and Business Statistics degree such as production management, marketing, finance, business economics, or management science would be an added advantage.

(b) Marketing, Finance or Business Economics
Applicants will require expertise specifically in the fields of Marketing, Finance or Business Economics.

LECTURESHIP/SENIOR LECTURESHIP
DEPARTMENT OF CLASSICS
(Available immediately)

Although the successful applicant will be expected to contribute to all the areas of classics taught in the Department, special consideration will be given to those whose main interest is in literature.

LECTURESHIP/SENIOR LECTURESHIP
DEPARTMENT OF CIVIL ENGINEERING
(Available immediately)

Applicants should have a good first degree in Civil Engineering, Professional Corporate Status and should be capable of teaching and conducting research in the fields of Transportation, Geotechnical, Surveying and professional practice. A higher degree and/or relevant postgraduate experience will be a strong recommendation.

LECTURESHIP/SENIOR LECTURESHIP
DEPARTMENT OF CHEMISTRY
(Available 1st June 1983)

Applicants should have a PhD in Organic Chemistry. The successful applicant will be required to teach and do research in Organic Chemistry.

LECTURESHIP/SENIOR LECTURESHIP
FACULTY OF VETERINARY SCIENCE
(Available 1st January 1983)

A vacancy will occur in January 1983, for a Lecturer/Senior Lecturer to teach applied physiology of domestic animals to students for the degree of Bachelor of Veterinary Science. Applicants should preferably have a degree in veterinary science and must have research and teaching experience in a relevant field. The successful applicant will be seconded to the Department of Physiology in the Faculty of Medicine, with the option to transfer to the Faculty of Veterinary Science at a later date.

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Appointments on above scales according to qualifications and experience.

CONDITIONS OF SERVICE: Both permanent and short-term contracts are offered. Persons who are not Zimbabwean citizens may be appointed only on a short-term contract basis with an initial contract period of two years (Veterinary Science up to five years).

Six copies of applications giving full personal particulars (including full name, place and date of birth etc) qualifications, employment and experience, present salary, details of three referees, telephone number and names and addresses of three referees should be addressed to the Director, Appointments and Personnel, University of Zimbabwe, PO Box MP 187, Mount Pleasant, HARARE, Zimbabwe, from whom further particulars are available on request.

Overseas applicants should send a further copy of their application to the Association of Commonwealth Universities (A/CU), 38 Gordon Square, London WC1H 0PF, from whom further particulars also available.

Closing date for receipt of applications is 29 October 1982.

UNIVERSITY OF ASTON IN BIRMINGHAM
Management Centre

LECTURESHIPS
Marketing/Small Business Management/
Strategic Management/Public Sector Policy

As part of the continuing development of the University of Aston Management Centre is one of the UK's leading business schools, the Centre is keen to increase its activities in the above areas. The Centre operates at the postgraduate, post-graduate and undergraduate levels, as well as pursuing a vigorous programme of research activities, and it houses a specially funded SSRC Doctoral Programme.

Applicants are invited from candidates with substantial teaching and research backgrounds or significant relevant practical experience in their field of interest. Successful candidates will be expected to play an active part in research as well as teaching and contributing to course development in the Management Centre. They will also be expected to participate in initiatives taken by the University to assist in the growth of West Midlands' industry and commerce - the Aston Science Park, formed by the City of Birmingham, Lloyds Bank Plc, and the University of Aston, will provide a major opportunity for successful candidates who wish to put their academic expertise to the test of practical application.

Salary will be within the range £6,375 to £13,505 per annum and appointments will be for a period of 3 years. (Ref. 524/156).

MICROPROCESSOR UNIT
LECTURERS

Applications are invited for two lecturer posts in the University's Microprocessor Unit and associated with the Department of Electrical and Electronic Engineering.

The role of the Microprocessor Unit is to provide a University central resource for the design, development and support of microprocessors and related engineering and computational systems. It provides undergraduate and postgraduate courses, projects and research. The Unit maintains close links with industry, providing industrial short courses and undertaking contracts for research.

The lecturers appointed will be expected to undertake general teaching duties in the Department of Electrical and Electronic Engineering in addition to participating in the work of the Microprocessor Unit. The posts should provide excellent opportunities for research.

Applicants should have research interests related to microprocessor applications and experience relevant to Electrical or Electronic Engineering. Candidates should preferably have a higher degree and/or industrial experience.

Salary will be within the range £6,375 to £13,505 per annum and the appointments will be for a period of three years. (Ref. 525/156).

DEPARTMENT OF MODERN LANGUAGES
LECTURER IN FRENCH

Applications are invited for a lectureship in any aspect of French Studies. Candidates should have a PhD degree and preference will be given to those with research qualifications and experience in one of the following:

a) The linguistics or sociolinguistics of contemporary French. An interest in applied language studies, with particular reference to the language of management, would be especially interesting.

b) Contemporary political studies.

Candidates will be expected to be competent to lecture in French and to teach French language at an appropriate level.

Commencing salary will be within the range £6,375 to £13,505 per annum and appointment will be for a period of three years. (Ref. 526/156).

Application forms and further particulars may be obtained from the Staff Office (quoting appropriate reference number) University of Aston in Birmingham, Gosta Green, Birmingham B4 7ET. Tel: 021-559 3611, Ext. 4564.

Closing date: 15th October, 1982.

ABERYSTWYTH
THE UNIVERSITY
COLLEGE OF WALES
CONFERENCE OFFICER

Applications are invited for the post of Conference Officer in the Department of Electrical Engineering and Electronics. The successful candidate will be responsible for the management of the Department's conference facilities and for the organization of the Department's conferences. The post is full-time and involves a high degree of responsibility. The successful candidate will be expected to have a minimum of five years' experience in a similar post. The salary will be £13,505 per annum. Applications should be sent to the Director of Staff Services, Brunel University, Uxbridge, Middlesex, Ux8 3PH. Closing date: 15th October 1982.

MANCHESTER
THE UNIVERSITY OF
DEPARTMENT OF FRENCH

Applications are invited from candidates to give preference to those with research qualifications and experience in one of the following:

a) The linguistics or sociolinguistics of contemporary French. An interest in applied language studies, with particular reference to the language of management, would be especially interesting.

b) Contemporary political studies.

Candidates will be expected to be competent to lecture in French and to teach French language at an appropriate level.

Commencing salary will be within the range £6,375 to £13,505 per annum and appointment will be for a period of three years. (Ref. 526/156).

Application forms and further particulars may be obtained from the Staff Office (quoting appropriate reference number) University of Aston in Birmingham, Gosta Green, Birmingham B4 7ET. Tel: 021-559 3611, Ext. 4564.

Closing date: 15th October, 1982.

Universities continued

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Three additional lectureships are to be appointed to augment the staff of the recently launched MBA programme in Export Management and International Business. The aim of the programme is to combine high academic standards with a realistic view of the world of business.

The three vacancies are for lectureships in:
1. International marketing and the theory and practice of international trade.
2. International business policy.
3. International finance, with emphasis on the treasury function.

For all three vacancies the essential prerequisites are:
• A degree requiring the study of economics.
• EITHER a completed or nearly completed PhD in management or a related field OR management experience at senior level.
• Published research or writing on management or business topics.
• An ability to work effectively with business managers.

Also desirable are:
• Teaching experience at postgraduate level.
• Ability to develop and teach case studies.

Applicants are encouraged to send particulars of publications, current working papers, cases written and descriptions of courses taught with their application forms. Salary will be on the scale £8,275-£13,505 plus £1,035 London Allowance. Appointments will be initially for three years.

Further particulars and application forms may be obtained from the Deputy Academic Registrar's office, The City University, Northampton Square, London EC1N 2BU. Tel: 01-253 488, Ext. 3077. Please quote reference CUBS/273/782. Closing date 9 October 1982.

NIHE
NATIONAL INSTITUTE FOR HIGHER EDUCATION DUBLIN

Personnel

Applications are invited for the position of Personnel Officer who will have general responsibility for Personnel matters and for Industrial Relations at the Institute.

Candidates should have had appropriate experience and should be academically qualified.

Salary: IR£11,855 - £16,581

Application forms and further details are available from:
The Personnel Office, National Institute for Higher Education, Glasnevin, Dublin 9, Ireland. Closing date: Friday 8 October, 1982.

Applications previously received will be automatically considered.

ST. JOHN'S COLLEGE OXFORD
JUNIOR RESEARCH FELLOWSHIPS

The College proposes, if there should be suitable candidates, to elect one Junior Research Fellowship in Physics and two Junior Research Fellowships in any other academic subject from 1 October, 1983. The College will not normally consider candidates who at the date of election will be over 28 or who will not have completed a first degree. The Fellowships are open to men and women and will be tenable for three years.

The person appointed to the Physics Fellowship may be required to teach Physics for up to six hours a week, according to the personal needs. Salary within personal range. Requests for further details and application forms to Paul Johnson, Establishment Officer, ref: JRS/82.

A Junior Research Fellow will receive a stipend of £4,718 a year (under review), be entitled to lunch and dine at High Table without charge and will, if unmarried, be given free rooms or, if married, a housing allowance.

Further particulars and forms of application may be obtained from the President's Secretary. Please indicate if you will be applying for the Physics Fellowship so that details of the examination syllabus may be sent to you. Completed application forms should be sent to the President's Secretary as early as possible and not later than 23 October, 1982.

HONG KONG UNIVERSITY OF SCIENCE AND TECHNOLOGY
SENIOR LECTURERS IN STATISTICS

Applications are invited for one of Senior Lectureship in Statistics.

Applicants should have suitable qualifications including postgraduate experience in statistics. In addition, research or professional research experience will be regarded as an advantage. The successful applicant will be expected to have an interest in the area of application and to be able to solve problems that arise from such work.

At current rates, salary should not exceed HK\$21,000-21,500 per annum. The successful applicant will be expected to have an interest in the area of application and to be able to solve problems that arise from such work.

Further particulars and application forms may be obtained from the Association of Commonwealth Universities, 38 Gordon Square, London WC1H 0PF, from whom further particulars also available.

Appointments will be for a period of three years. Closing date for applications is 11 November 1982.

BRUNEL UNIVERSITY
DEPARTMENT OF ENGINEERING & ELECTRONICS
LECTURESHIP

Applications are invited for the post of Lecturer in the Department of Electrical Engineering and Electronics. The successful candidate will be responsible for the management of the Department's conference facilities and for the organization of the Department's conferences. The post is full-time and involves a high degree of responsibility. The successful candidate will be expected to have a minimum of five years' experience in a similar post. The salary will be £13,505 per annum. Applications should be sent to the Director of Staff Services, Brunel University, Uxbridge, Middlesex, Ux8 3PH. Closing date: 15th October 1982.

CAMBRIDGE UNIVERSITY OF BIOLOGICAL ANTHROPOLOGY
DEPARTMENT OF ANTHROPOLOGY

Applications are invited for the post of Lecturer in the Department of Biological Anthropology. The successful candidate will be expected to have a minimum of five years' experience in a similar post. The salary will be £13,505 per annum. Applications should be sent to the Director of Staff Services, Cambridge University, 38 Gordon Square, London WC1H 0PF, from whom further particulars also available.

LONDON UNIVERSITY COLLEGE
ECONOMICS UNIT
COMPETITOLEN

Applications are invited from candidates with suitable qualifications and experience for appointment to the post of Lecturer in the Department of Economics. The successful candidate will be expected to have a minimum of five years' experience in a similar post. The salary will be £13,505 per annum. Applications should be sent to the Director of Staff Services, London University College, 38 Gordon Square, London WC1H 0PF, from whom further particulars also available.

LONDON UNIVERSITY COLLEGE
ECONOMICS UNIT
RESEARCH ASSISTANT

Applications are invited for the post of Research Assistant in the Department of Economics. The successful candidate will be expected to have a minimum of two years' experience in a similar post. The salary will be £6,375 per annum. Applications should be sent to the Director of Staff Services, London University College, 38 Gordon Square, London WC1H 0PF, from whom further particulars also available.

PLYMOUTH POLYTECHNIC
Faculty of Technology
HEAD OF DEPARTMENT ARCHITECTURE

Salary: Head of Department Grade V £14,670 - £16,305
With Possible Election to a Professorship

Applicants with high academic qualifications and appropriate experience as a practising architect are invited for the appointment. The ability to give academic and research leadership in this RIBA recognised department is essential.

Application forms to be returned by Tuesday, 19th October 1982, can be obtained with further particulars from the Personnel Office, Plymouth Polytechnic.

DUNDEE COLLEGE OF TECHNOLOGY
Applications are invited from appropriately qualified candidates for the post of

Head of Department of Accountancy & Economics

The college is a Scottish Central Institute with a substantial and growing range of degree and diploma courses. Courses for which the department of accountancy and economics is responsible include BA in Accounting, BA in Applied Economics and BSc in Accounting. In addition, it contributes to the teaching of various degree and diploma courses offered by other departments. The person appointed may be eligible for a professorship and applicants should have appropriate academic standing; they should also have experience of teaching at honours degree level and relevant professional and/or research experience, together with a proven record of managerial ability. The salary is currently £17,847. Financial assistance towards the cost of removal expenses may be payable.

Further particulars and application forms are obtainable from the Principal, Dundee College of Technology, Bell Street, Dundee DD1 1TH, to whom completed applications should be returned by 8 October 1982.

NORTH EAST LONDON POLYTECHNIC
Faculty of Engineering, Barking Precinct, Longbridge Road, Dagenham, Essex.
School of Electrical and Electronic Engineering

Head of School - Grade VI

Applicants should be Chartered Electrical Engineers and hold a higher degree, preferably a doctorate, in Electrical, Electronic or Control Engineering. They must have significant experience in a Polytechnic or University, in both research and educational capacities, and have gained a national academic standing. It is essential that they have the personal qualities necessary to provide strong leadership.

Salary: £15,857-£17,400 plus the appropriate London Weighting Allowance. Reference Number: E/8/82.

Lecturing Staff within the range LI to PL (Three posts)

Applicants should be well qualified and experienced engineers in an area of electronic, communications or control engineering, and should be qualified at least to the level of an honours degree. A proven record of research achievement leading to publications is essential and an experience of supervising the research of academic staff or students would be an advantage.

Salary: £12,855-£15,022 plus the appropriate London Weighting Allowance. Reference Number: E/3/82.

School of Manufacturing Studies and Mechanical Engineering

Lecturers in Manufacturing Systems within the range LI to SL (Two posts)

Candidates should possess a relevant first or higher degree and have recent academic experience in manufacturing systems design and/or operation. Preference will be given to candidates with experience of CAD/CAM systems, flexible manufacturing systems, robotics, or the application of microprocessors to the control of manufacturing processes.

Salary: LI - £8,555-£11,022 plus appropriate London Weighting Allowance. Reference Number: E/6/82.

For further details and an application form for any of the above posts please contact the Polytechnic Personnel Office, North East London Polytechnic, Aeta House, 198/194 High Road, Chesham HA8 6LL, Tel: 01-890 7722, Ext. 3181/110 quoting the appropriate reference number. Closing date for receipt of applications: 8th October.

NELP North East London Polytechnic

SHEFFIELD CITY POLYTECHNIC
DEPARTMENT OF ACCOUNTANCY AND COMPANY ADMINISTRATION
SENIOR LECTURER/LECTURER II IN BANKING

A Lecturer is required to teach a range of banking subjects on our A1B Courses. The successful candidate will be suitably qualified academically and/or professionally. The ability to participate in the teaching and development of Law or Business Organisations would be an advantage.

Salary Scale: Lecturer II - £10,175 - £11,994 (bar) £12,816 p.a.

The successful candidate will be appointed to the appropriate salary scale according to experience and qualifications.

LECTURER II IN MANAGEMENT ACCOUNTING

A Lecturer in Management Accounting is required to teach on the department's range of professional, graduate and post graduate courses. The candidate must have a first degree in Accountancy or Business Studies and/or professional qualification. Additionally, industrial experience would be desirable.

Salary: £8,955 - £11,022 p.a. subject to satisfactory performance. The successful candidate can normally expect incremental progression on the Senior Lecturer Scale of which the present maximum is £12,816 p.a.

Application forms and further details from the Personnel Office, (Dept. 788), Sheffield City Polytechnic, Hillsborough, Sheffield, S18 2PL. Completed forms to be returned by 6th October, 1982.

Sheffield City Polytechnic is an Equal Opportunities Employer.

COVENTRY POLYTECHNIC
DEPARTMENT OF ECONOMICS
SENIOR LECTURER IN ECONOMIC HISTORY
£10,175 - £12,816

Preference will be given to applicants who have a first degree in History, Economics, or a related subject, and who have had relevant professional or research experience. The successful candidate will be expected to have a minimum of five years' experience in a similar post. The salary will be £13,505 per annum. Applications should be sent to the Director of Staff Services, Coventry Polytechnic, 38 Gordon Square, London WC1H 0PF, from whom further particulars also available.

SUNDERLAND POLYTECHNIC
Faculty of Engineering
Department of Mechanical Engineering
LECTURER IN STRENGTH OF MATERIALS

Salary Scale: Lecturer II £8,955 - £10,173 Bar £11,072 per annum.

Applicants should have a degree in Mechanical Engineering or equivalent. Main duties will be the teaching of Strength of Materials. Experience in research would be an advantage.

An application form and further particulars may be obtained from the Personnel Office, Sunderland Polytechnic, Langham Tower, Ryhope Road, Sunderland SR2 7EE or telephone Sunderland 78231, Ext. 11. Closing date 8 October, 1982.

BERNARD ROBERTSON'S INSTITUTE OF TECHNOLOGY
SCHOOL OF SOCIAL STUDIES
RESEARCH FELLOWSHIP

Candidates should have a first degree in Social Studies or a related subject, and should have had relevant professional or research experience. The successful candidate will be expected to have a minimum of five years' experience in a similar post. The salary will be £13,505 per annum. Applications should be sent to the Director of Staff Services, Bernard Robertson's Institute of Technology, 38 Gordon Square, London WC1H 0PF, from whom further particulars also available.

Polytechnics continued

LEICESTER POLYTECHNIC SENIOR RESEARCH POST IN THE HUMAN FACE RESEARCH UNIT

Librarians

LAMPETER SAINT DAVID'S UNIVERSITY COLLEGE ASSISTANT LIBRARIAN

Colleges of Higher Education

DIRECTOR

CHELMER INSTITUTE OF HIGHER EDUCATION Applications are invited for this post which becomes vacant on 1st September 1983



HULL COLLEGE OF HIGHER EDUCATION School of Fine Art Senior or Principal Lecturer PAINTING

Applications are invited from suitably qualified and experienced persons to provide academic leadership, manage the School's painting resources and co-ordinate undergraduate painting and printmaking course programmes.

OXFORD WESTMINSTER COLLEGE

LECTURER II IN ART Applicants should have qualifications in Art with appropriate teaching experience

LECTURER II IN SCI-ENCE Applicants should have good qualifications in Science with appropriate teaching experience

Overseas

AUSTRALIA ROYAL MELBOURNE INSTITUTE OF TECHNOLOGY LIMITED LECTURER in METALLURGY

The Department of Metallurgy and Mining is seeking a lecturer to assist with the running of its degree and diploma courses in metallurgy and welding technology.

KING ABDULAZIZ UNIVERSITY JEDDAH, SAUDI ARABIA ENGLISH DEPARTMENT

Vacancies exist in the English Department of King Abdulaziz University on one year renewable contracts.

THE UNIVERSITY OF GENEVA sollicit applications for the CHAIR OF ENGLISH LINGUISTICS

REQUIREMENTS: Doctorate or equivalent, university teaching experience at all levels, publications of international reputation.

ISRAEL COMPUTER VACANCY

Birzeit University, an independent Arab institution in the Israeli occupied West Bank, is seeking a computer expert to help in the administration of the university.

Grants

JAPAN FOUNDATION FOR THE PROMOTION OF INTERNATIONAL CO-OPERATION

The annual income from a donation made by the Japanese Government to the Foundation for the Promotion of International Co-operation is available for the promotion of international co-operation.

Overseas continued

DARLING DOWNS INSTITUTE OF ADVANCED EDUCATION Toowoomba, Queensland, Australia.

School of Arts PRINCIPAL LECTURER II - COMMUNICATIONS (Ref. No. 90/138)

An opportunity exists for appointment to this challenging and innovative position, with the initial responsibility of making a substantial input to the development of a new three year major in communications.

School of Applied Science PRINCIPAL LECTURER II - GEOLOGY (Ref. No. 60/69)

Geology is studied at Darling Downs Institute of Advanced Education by a substantial number of undergraduates in the bachelor of applied science course as a major specialisation or as an option study.

Applications, including full personal particulars, a resume of qualifications and experience together with the names and addresses of three referees, should be forwarded to The Agent General for Queensland, Queensland House, 392-393 Strand, London WC2R 0LZ.

NATAL UNIVERSITY OF ECONOMIC RESEARCH DURBAN SOUTHWEST AFRICA

Applications are invited from suitably qualified persons for the post of Research Fellow in the Department of Economics.

RESEARCH FELLOW SENIOR RESEARCH FELLOW

Applications should be made to the Registrar, Natal University of Economic Research, Durban, Natal, South Africa.



UNIVERSITY COLLEGE GALWAY

TEACHING APPOINTMENT IN MECHANICAL ENGINEERING

Applications are invited for the above temporary post from academically qualified candidates with appropriate industrial or research experience.

Classified Advertisements

To advertise in the THES please phone JANE McFARLANE on 01-253 3000, Ext. 232

THE TIMES HIGHER EDUCATION SUPPLEMENT PRIORY HOUSE ST. JOHNS LANE LONDON EC1M 4BX

Adult Education

WALES WELSH JOINT EDUCATION COMMITTEE

Applications are invited from persons of proven ability for the post of Project Officer.

Further details and application forms to be obtained from the Registrar, University of Wales, Aberystwyth, Ceredigion, Wales, SY23 3DA.

Colleges of Technology

Lothian Regional Council NAPIER COLLEGE OF COMMERCE AND TECHNOLOGY

HEAD OF DEPARTMENT OF MECHANICAL ENGINEERING Salary: £15,924

The Department has developed a CMAA Degree in Energy Engineering and is responsible for a number of other courses.

DIRECTOR OF LEARNING RESOURCES UNIT Salary: £14,952

The function of the Learning Resources Unit is to provide highly effective teaching methods and to ensure the most efficient use of available staff time and resources.

Colleges of Further Education

ilea Inner London Education Authority

SOUTH THAMES COLLEGE Wandsworth High Street, London SW18 2PP

Vice-Principal

Required for January 1983 Post Ref: VPI/62 Applicants should have administrative experience in a College of Further Education and preference will be given to candidates able to advise on Business, General Education and Manpower Services courses.

KENT COUNTY COUNCIL Education Committee

NORTH WEST KENT COLLEGE OF TECHNOLOGY

A SENIOR LECTURER IN ENGLISH is required to play a leading part in the development of the Department.

Further information and application forms can be obtained from the Principal, North West College of Technology, Maidstone Road, Dartford, Kent DA1 2LU. Tel: Dartford 25471. H7

Research and Studentships

DIHE Research Assistantship

In the Department of Catering, Hotel Administration and Applied Science for the following project sponsored by the Ministry of Agriculture, Food and Fisheries.

MANCHESTER THE UNIVERSITY OF

RESEARCH ASSOCIATE IN ASTRONOMY Applications are invited for two-year posts to start in November 1982.

UMIST DEPARTMENT OF MANAGEMENT SCIENCES INDUSTRIAL RELATIONS

Applications are invited for two posts of RESEARCH ASSOCIATE in the Industrial Relations Department.

EDINBURGH UNIVERSITY OF DEPARTMENT OF INTELLIGENCE

Applications are invited for the above SERC funded post, tenable from 1st November 1982.

Personal

IMMEDIATE ADVANCED 200 to £25,000. Various terms. 31 Dover Street, London W1A 1AA. Tel: 01-253 4100.

Higher Education SUPPLEMENT

SPECIAL BOOK NUMBERS 1982

- Oct 1 Biological Sciences
8 University Presses
15 English
22 Sociology
29 Maths and Physics
Nov 5 History
12 Psychology
19 Politics
26 Computers Science

SPECIAL FEATURES 1982

- Oct 8 Academic Journals

SPECIAL BOOK NUMBERS SPRING/SUMMER 1983

- Feb 4 English
11 Education
18 Biological Sciences
25 Economics
March 4 European Studies
11 Sociology
18 Maths and Physics
25 History
April 1 London Book Fair
8 Psychology
15 Engineering
22 Philosophy
29 Chemistry
May 6 Law
13 American Studies
20 Environmental Studies
27 Social Administration

SPECIAL FEATURES SPRING/SUMMER 1983

- Jan 21 Business and Technical Education
28 Microfilm Publishing
Mar 25 Management Education
June 10 Reviews of New Journals in the Humanities and Social Sciences
17 Computers in Higher Education
July 1 Education for Employment

